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Baltimore. Mayor.

The Mayor's message +

REPORTS

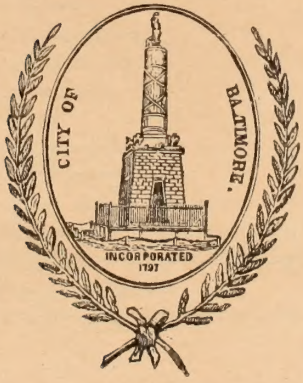
OF THE

City Officers and Departments

MADE TO THE

CITY COUNCIL OF BALTIMORE

FOR THE YEAR 1911



BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1913

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Topographical Survey Commission.

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FIRST ANNUAL MESSAGE

WITH

ADDENDA CONTAINING ABRIDGED REPORTS OF DIFFERENT DEPARTMENTS

JAMES H. PRESTON

MAYOR OF BALTIMORE

1911-1912

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EXCERPTS FROM MESSAGE

If we want a prosperous city, we must all become so busy doing our part to that end that we will not hear the croakings of the chronic "knockers."

* * *

My faith in the people sustains me in giving, as I do, all my time and the best ability and judgment which I possess to the discharge of the duties of the high office with which they have honored me.

* * *

Every Monday afternoon I require all of the heads of the departments to meet me in conference in the Mayor's reception room.

The departmental heads themselves are satisfied with the real practical and co-operative status which now exists. It is a pleasure to note how the entire municipal machinery is pulling together and how it is producing results quickly and effectively.

* * *

I have stopped the practice of relaying cobblestones.

* * *

The special paving tax will be fair because it makes the people who have heretofore received the advantage of an improved pavement, without special cost to them, help to make up a fund to give the rest of the city the same advantage. It treats all alike because it runs against every property ten years and no longer.

For these two reasons: first, because it is a direct benefit to the property, and secondly, it will enable us to show to the

world a tax rate thirty cents lower than it otherwise would be, I heartily recommend to the people the adoption of the sewer rent system.

* * *

I intend, as far as it can possibly be brought about, that every dollar expended by the city shall produce a full dollar's worth of results.

* * *

In the School Board, and among the teachers, harmony has succeeded discord, and there is a revival of good feeling all over the city, which is evidenced by the fact that this year marks the highest attendance of pupils ever recorded in the history of Baltimore.

* * *

A few days after my term began, there came before the Board of Awards a bid of the Allis-Chalmers Company for installing a pump in the Mount Royal Pumping Station, the bid being for $166,366. There were certain circumstances connected with the matter which induced the Board to reject the bid and re-advertise. Upon the new bids the contract was awarded to a perfectly responsible bidder for $114,000, thus showing a saving in that one item of $52,366, or about 33⅓ per cent.

* * *

It is gratifying to be able to report to you that within one year after my term began, and within eight months after the appointment of the present City Solicitor, the Warren Deal, which had delayed an increased and improved water supply for our city for more than three years, has been tried out in court, and set aside by the court's decree; the contract for the new dam has been let, and the work is now going on.

* * *

All around us is a zone of closely connected suburban sections, which, in reality, are just as much a portion of Balti-

more as is the corner of Charles and Baltimore streets. Those sections should be with us, as one city.

* * *

I suggest the construction of a municipal railway around the harbor and by the most available way to the deep water of Spring Gardens.

* * *

Under the present method in the City Hall, it is doubtful if any corporation in the city has greater safeguards than are thrown around the city's money.

* * *

I had an ordinance prepared, which this City Council passed, putting the bailiffs in the Tax Collector's office upon a salary basis in lieu of the fee system. This saved the city $14,000 for the year 1912; and for each year thereafter the saving will be larger.

* * *

I believe that for the money paid, the city today is getting as efficient service as any of the big private corporations in Baltimore.

* * *

We secured from the recent session of the Legislature a great deal of legislation, very important from the city's standpoint.

* * *

Perhaps the most important piece of legislation secured was the new condemnation law, doing away with the old farcical method of having the value of land taken for public use assessed by a sheriff's jury assembled, as they usually did, in some hotel or saloon, and instead thereof substituting a trial before a jury in court presided over by a judge. This, in my judgment, is not only an important reform in the law,

but it will save the city hundreds of thousands of dollars in the cost of property to be acquired in connection with the increased and improved water supply.

* * *

I believe that there is a spirit of progress widespread among the people that will co-operate with you gentlemen of the Council and with the executive officers of the city administration in setting our city forward during the next three years in the march of progress toward a better and greater Baltimore.

To that end I pledge to you and to the people of Baltimore the utmost of my ability and earnest endeavor.

FIRST ANNUAL MESSAGE

Gentlemen of the City Council:

Section 22 of the Charter provides that the Mayor "shall report to the City Council in each year the general state of the city with an accurate account of the money received and expended, to be published for the information of the citizens."

In obedience to this provision, I herewith submit my first annual message.

As I have been in office but a year, and the present heads of the departments, so far as changes were made, have been in office only since October 2, it is apparent that a great deal of the work of this administration must consist, as yet, of plans.

Something has been accomplished, and plans have been perfected for the accomplishment of much in the way of public improvements, and improvements in the administration of the city's affairs which will, it is hoped, help along the movement for a Greater Baltimore.

It is specially important that what has been done, and what is planned to be done, should be set before you accurately and fully, in view of the fact that from two of the newspapers of this city the people cannot learn the truth about what this administration has done or planned.

The *Sun,* which in the past had a record which endeared it to the people of Baltimore as the Democratic family newspaper of the city, has recently passed under the control of a certain Charles H. Grasty. Mr. Grasty, for a number of years, conducted the *News.*

After Mr. Grasty sold the control of the *News* to Mr. Munsey, he purchased a newspaper in St. Paul, Minn., and continued in that paper the mud-slinging policy, which had marked his control of the *News,* to such an extent that the Mayor of St. Paul, in his annual message of April 11, 1910, used the following language in regard to Mr. Charles H. Grasty, who now controls the *Sun:*

"During the reign of the late Mr. Grasty, of Baltimore, it was not unusual for delegations of leading business men to call a halt on the reckless and injurious attacks made by these papers on the standing and prosperity of the city. Mr. Grasty, of course, had no stake in this community. He was here for loot and lucre. Never a voter or property holder, he emulated the thrifty laundryman from China, who fills his purse and departs for his congenial home to enjoy his savings.

"You have no doubt frequently wondered during the past few years at assaults made by these papers on the prosperity of the city; for instance, their continuous claim of corruption and extravagance in municipal boards, and more particularly, their outcry during the so-called epidemic of infantile paralysis last summer. The reason is clear. The men who control the columns, editorial and local, of these papers have no more interest in the welfare of our city than had the James and Younger gang in Northfield, when they made their historic visit to that beautiful town."

I have quoted this, because it fits the situation so well in Baltimore.

Grasty's morning and *Evening Sun* have repeatedly published and republished and reiterated, alleged statistics of the number of cases of typhoid fever in this and other cities, trying to advertise our city far and near as unhealthy, and time and again this calumniator of Baltimore has published in his morning or *Evening Sun* that the drinking water is no better than if we took it out of the gutter; a vile falsehood, because by actual chemical test our water is better than that of the great majority of the cities of our country.

After Mr. Grasty returned to Baltimore, and his purchase of the *Sun,* he boasted that he was going to be the political

dictator of this city and State. In the effort to realize that boast, he picked out his candidate in the municipal primary, and because I entered the list, as any citizen had a right to do, in opposition to the candidate who was being backed by Grasty, Mr. Grasty stirred up the mud of his foul mind and published from day to day, and twice a day, in his morning *Sun* and *Evening Sun* (the latter of which was only distinguished from the former by being more scurrilous), vile and libelous charges and insinuations against me. In self-defense I was compelled to publish some articles which showed up Mr. Grasty in his true character, and showed him to be a wretched example for any young man of this city, morally and politically.

When, in spite of the opposition of Mr. Grasty, the Democratic party nominated me, and the people elected me, it might have been expected that, the matter having been decided by the people, these papers, as a matter of business policy and a decent regard for our city and for its duly elected officials, would have stopped their career of libel, misrepresentation and mudslinging, but they did not. They have kept up, to this day, misrepresentations, false statements, absolute falsification of the facts, and injurious insinuations against not only the Mayor but the administration generally. Thus they have poisoned the minds of such of their readers as are misled or influenced by what they see in those papers, and in that way these two men have done what they could to block progress, by creating a feeling of hostility, instead of co-operation as there should be, between a portion of our people and their city administration.

A fair sample may be seen of Grasty's spite in the attitude of the *Sun*, morning and evening, toward my candidacy for the Vice-Presidency.

The Democratic State Convention passed unanimously the following resolution:

"WHEREAS, The press of the country and many distinguished leaders of the Democratic party have suggested the nomination of the Hon.

James H. Preston, now Mayor of the City of Baltimore, as Vice-President of the United States, and this suggestion has been received with the warmest approval on the part of the citizens of Maryland as expressed in many meetings, and in the local press; and

"WHEREAS, By the honest, fearless, progressive and public spirited manner in which James H. Preston has conducted the affairs of Baltimore city as its Mayor, he has shown executive ability of a high order, such as fully justifies the confidence of the people of Maryland; and

"WHEREAS, Baltimore is the place of meeting of the National Convention, and this and the party services of Mr. Preston would render such nomination eminently proper; and

"WHEREAS, The State of Maryland and the City of Baltimore are the gateway between North and South, and no Southern State has received any recognition on the national ticket for many years; therefore, be it

"Resolved, That this Convention recommend to the delegates from Maryland to the National Democratic Convention that they use every honorable effort to secure the nomination of the Hon. James H. Preston as Vice-President of the United States."

Although, after the passage of this resolution, my candidacy ceased to be personal, and I became the candidate of the Democracy of the State of Maryland, and due regard for decency and respect for the voice of the Democracy of the State would have required him at least to have refrained from attacking this State's candidate, Grasty lost no opportunity from the time of the passage of this resolution until the adjournment of the National Convention to criticise and belittle the movement, and even after the Convention was over he carried his spite so far as to falsely and maliciously misrepresent the occurrences at the Convention at the time of my name being put in nomination.

This was continued and has been continued even after the adjournment of the Convention, notwithstanding the fact that fifty-eight votes were cast for me and that four other gentlemen in nomination received fewer votes than I for the Vice-

Presidency, and in the face of the fact that the nomination of Governor Wilson of New Jersey, in the minds of many, precluded Maryland from being considered at all for the second place on the ticket.

Not content with attacking the administration, as above stated, Grasty has apparently taken delight in publishing and repeating exaggerated statements as to the alleged bad water, and the alleged prevalence of typhoid fever, and alleged high death rate, and other things that would naturally have a tendency to prevent people from coming to Baltimore to live or from investing their money here; as if he were purposely trying to neutralize the efforts which are being made by the administration and by the great body of our citizens to build a cleaner and healthier and greater Baltimore.

In comparing the public-spirited attitude of the Republican papers—the *American* and the *Star*—with the course of Grasty the effect on our civic life is easily apparent.

I have no hesitation in saying that, in my judgment, the greatest enemy Baltimore has in her midst today is found in the degenerate nature of Charles H. Grasty and his control of the Baltimore *Sun* and *Evening Sun*.

Should the ownership, with the controlling policy, of the *Sun* and the *Evening Sun*, ever find their way into the hands of men who really love Baltimore—that is, men of a different type from Grasty, men who really want to build up, rather than pull down the good name and general prestige of the city—it will add enormously to the prosperity of our people and will multiply the possibilities of our well-being.

Open-Door Policy.

Every door of the City Hall is wide open. The administration challenges the most severe and searching scrutiny.

All that I desire is that the public may know all the facts. With the real facts brought to their attention, I have entire confidence that the people will form a correct judgment.

Faith in the People.

I have an abiding faith in the average man's sense of justice; in his faculty of discernment and discrimination; and his ability to understand the value of honest effort and to weigh its ultimate effects.

My faith in the people sustains me in giving, as I do, all my time and the best ability and judgment which I possess to the discharge of the duties of the high office with which they have honored me. The things that have been done, and the things that have been planned to be done, are herein submitted to the scrutiny and judgment of my fellow citizens.

Unity and Co-operation Among the Departments.

Since my induction into office, my effort has been to secure efficiency of service. There was individual and departmental efficiency. The real and all-important problem was the establishment of "general efficiency" upon a co-operative basis. That is to say, what was needed was "team work."

It became necessary, therefore, at the very beginning of this administration to curb the departmental disposition to operate solely for such department. I determined to make the whole municipal machinery a unit of action. My aim was to substitute, in the place of inter-departmental discords and bickerings, a policy of co-operation, thereby developing and establishing an effective and practical esprit de corps.

Lack of departmental unity was not only disturbing, it was expensive. Municipal work was retarded as the result of such conditions. Duplications of cost followed. Delays occurred where prompt action was possible.

As one means of securing co-operation, I instituted a practice which has proved of great value. Every Monday afternoon I require all of the heads of the departments to meet me in conference. At these conferences, each departmental head gives a report of what he is then doing and of what he plans to do during the succeeding one or two weeks. As

these reports are made, all of the other departments are expected to take note, with the view of discovering wherein their department is affected by any projected work. Wherever two or more departments are found to be involved, they are expected there and then to discuss the best ways and means for quick and effective co-operation. As a result, it is soon discovered what each department should do, the time when it should be done, and the manner in which it should be done.

In this way I have been able to fix responsibility. The record will show that the departments, by reason of this practice, have gotten closer together, have moved along more swiftly, have accomplished more concrete results, have been subjected to less deserved criticism, and have operated at a substantially lower aggregate cost to the city.

The departmental heads themselves are satisfied with the real, practical and co-operative status which now exists. It is a pleasure to note how the entire municipal machinery is pulling together and how it is producing results promptly and effectively.

Cobblestones.

Plan by which to make them of real practical value.

Baltimore is an old city, and as the result of her age, she has fallen victim to a number of cobblestone streets, laid many years ago. Such streets are an anachronism in a modern city; they should no longer be tolerated in Baltimore.

That being true, I have stopped the practice of relaying cobblestones. Not a single stone is permitted to be laid, except in those instances where immediate repairs are necessary to avoid accident.

But cobblestone pavements are not absolutely useless. It is believed that they will serve as an enduring and substantial base for asphalt or other composition topping. Since my incumbency, the experiment has been tested on Calvert street, from the bridge to North avenue, and on Lanvale street, between Charles street and Greenmount avenue. Those streets have

been converted from cobbles to smooth paving, apparently as good as if on a concrete base, and at a saving to the city of about seventy-five cents per square yard.

The Paving Commission are so well satisfied by the experiment and other inquiries, that they are planning to utilize the cobblestone pavements extensively as bases for asphalt and bituminous concrete paving, at a saving of about one-third. The longer cobbles have lain in any street the better they are as a base for the improved surfacing.

Paving Commission Plans.

Soon after my term began, it became my duty to select the Paving Commission, authorized by the Legislature and the vote of the people ratifying the Five-Million-Dollar Paving Loan, to undertake the work of converting our antiquated, unclean and unhealthy cobblestone streets into modern smooth pavements. I thought it wise to appoint as chairman of this Commission an engineer experienced in paving, and for the other members I was fortunate enough to secure leading business men of long experience and recognized ability. I was anxious to hasten the beginning of the long deferred duty of modernizing our streets, and the Commission entered upon their task with promptness and vigor. Their scheme of paving, after the most careful consideration, was presented and adopted; a long list of streets has been scheduled for paving this year; and quite a number of contracts have been awarded.

There are some sections of the city which the Commission has seemingly neglected. It is a matter of keen regret, however, that there has not been more actual paving done this year and last under the Five-Million-Dollar Loan. The sections where the paving seems to be few and far between are sections where the Sewerage Commission as yet has not finished its work. It would be foolish extravagance to lay improved pavements in those localities only to have them torn up in a very short time by sewerage operations.

It will be seen by reference to the schedule, that most of the proposed new paving will be in those localities where the Sewerage Commission has completed its labors and where the pavements, in consequence, when laid, will not be subsequently torn up.

How to Finance the Improved Paving of the City.

It was apparent that the proceeds of the Five-Million-Dollar Loan authorized by the Act of the Legislature and the ratification by the people would not be sufficient to replace the cobblestone pavements with improved pavements throughout the entire city.

The first step of the administration, with the assistance of the chairman of the Paving Commission, was to make a careful computation as to the amount that would be required to put improved pavements throughout the old city limits; and it was ascertained that the cost will probably be about ten millions of dollars. We were then face to face with the problem as to how to raise the additional five million dollars. It was proposed by some to do so by assessing two-thirds of the cost of the paving on the abutting property-owners. The objections to this plan were, first, it was unequal and unfair, because a great many of the streets of Baltimore which have been heretofore paved with improved paving were made without cost to the abutting property-owners; secondly, because there was a very widespread opposition among the people to the assessment plan; and, thirdly, I had virtually promised the people in my campaign that I would not favor the Buffalo or assessment plan, and I intend in that matter, as in all others matters, to keep faith with the people.

Another suggestion was to use this loan so far as it would go and then float another loan. The serious objection to this plan was the increase of the city's debt and the consequent increase in the tax rate to provide for interest and sinking fund on the loan.

In my judgment, the city ought not to float any more loans for the present, except for work which will bring in a revenue to pay the interest and the sinking fund, and except for a new Light Street Bridge, where the amount now spent for repairs and maintenance will take care of the interest and sinking fund on the amount necessary to build the new bridge.

The administration, therefore, proposed a third plan, which is not subject to either of the above objections, namely: A special paving tax to run for ten years against all property abutting on streets heretofore paved with improved paving without assessment upon abutting property-owners, as well as on all streets which shall be hereafter so improved.

This plan, after careful consideration, was unanimously approved by the Paving Commission and by the Board of Estimates, and a bill to carry it into effect was prepared by the City Solicitor and submitted to and passed by the Legislature.

The tax will begin on property abutting on streets heretofore so paved, and on streets so paved during 1912, in 1913; will begin in 1914 on property abutting on streets so paved in 1913, and so on; and is to run on each property for ten years and then stop. The tax is to be fifteen cents per front foot on streets over thirty feet wide; ten cents per front foot on streets less than thirty feet, and not less than fifteen feet; and five cents per front foot on streets and alleys less than fifteen feet wide. The total amount of this tax on any one property will be less than the share of such property in two-thirds of the cost of paving the street. For example: on a forty-foot street, the cost of paving fifteen feet, at $2 per square yard, would be $133.33; if one-third were put on each side, which would be done under the Buffalo Plan, the cost for a fifteen-foot lot would be $44.44. Under the fifteen cent front foot tax provided in this bill, the cost for a fifteen-foot lot will be $2.25 per year for ten years, or $22.50 in all. On a twenty-foot

street, under this bill, the cost on a fifteen-foot front lot would be $1.50 per year, or $15 in all; under the Buffalo Plan the cost would be $22.22.

The special paving tax will be fair because it makes the people who have heretofore received the advantage of an improved pavement, without cost to them, help to make up a fund to give the rest of the city the same advantage. It treats all alike, because it runs on every property ten years and no longer. It is estimated that this tax will produce $5,000,000, which, together with $5,000,000 Loan, will be sufficient to pave the entire city with improved pavement.

Paving for Democratic Convention.

During the past months, in anticipation of the meeting of the Democratic National Convention in Baltimore, the proper municipal departments have been engaged in the very laudable task of laying improved paving around the Fifth Regiment Armory. Additional improved paving was laid on streets approaching the depots and other public places out of the special appropriation authorized by the Legislature to be used for improvements for the Convention. These improvements, while the immediate product of Convention enthusiasm, will prove to be valuable and permanent additions to Baltimore's physical comforts and conveniences.

Personal Inspections by Mayor.

Valuable results accruing from witnessing the thing itself, instead of reading reports.

The matter of keeping the city in the best physical condition has been and will be a matter of special care with me. To that end I am not relying solely upon reports. Personal inspections are valuable. I therefore devote considerable time to making personal observations and investigations of municipal affairs.

Wherever public improvements are in progress I make it a rule to visit each one at unannounced intervals with the view of seeing for myself what is being done.

Where municipal departments or public service corporations become tangled up in their operations on some municipal highway, a personal inspection of the situation will usually disclose the responsible cause of the trouble.

If there is a bitter dispute over the granting of some permit, which permit seemingly affects the locality involved, there is no testimony half so convincing in helping to solve the controversy as an actual personal inspection of the premises.

That is why I started my administration with the determination of traveling about the city at frequent intervals in order to see things with my own eyes. It is my purpose to continue that practice.

Examples of Good Effect.

The value of one's personal presence, wherever public work is in progress, has already been proved in the matter of some of the State Roads operations. A very grave situation arose out of the conditions on the Harford road and Garrison avenue. Conflicting interests and conflicting views threatened at one time to delay the progress of the work, to the great inconvenience of the property-owners abutting on said roads, and the traveling public. Frequent personal inspections enabled me to keep in sufficiently close touch with both situations to help force that work forward to a successful conclusion.

This practice of personal inspection has been put into operation inside the City Hall. From time to time I have visited the quarters of the various departments, have inspected their methods and systems, have watched their operations, have made note of their efficiency in handling their special municipal functions, and have made particular note of those phases of their work which seemed to need some improvement. The general effect has been good.

Costs of Sewer Maintenance.

Shall the charge be put in the general levy or assessed against the property?

I desire now to call your attention to a most important problem.

During the last six or eight years our people have rushed with rather marked rapidity into the approval of a series of loans for public improvements. I am making no unfavorable comments on the fact of the loans. I merely want to call attention to the other fact that there is something about loans less pleasant and less easy than floating and spending them.

They have to be paid, principal and interest.

That is what we are about to face in the near future. How then can we best handle the financial charges which some of these loans will impose?

The one loan which is piling up the heaviest burden is the Sewer Loan. The burden of interest, sinking fund and maintenance of our twenty-million sewerage enterprise threatens to force a big addition to our general tax rate unless some better method is discovered of financing the situation.

If the sewerage interest, sinking fund and maintenance charges are paid from the general levy, we must accept a high tax rate; we may have a low tax rate if we adopt reasonable sewer charges. Which shall it be?

How Other Big Cities Do.

The effort of all big cities in these days is to reduce the tax rate to the lowest possible figures. A low tax rate is a business asset to any city.

Philadelphia has a series of special assessments. She even makes up annual municipal deficiencies by issuing special bonds in order to keep down the "apparent" rate. She presents, therefore, on the surface a very low tax rate. As a consequence, she enjoys an enviable prestige in the industrial world. Very

true, the taxpayers of Philadelphia have to pay substantially more than their tax rate indicates. Their actual payments, in dollars and cents, on a given piece of property similar in kind and environment to a like piece of property in Baltimore will exceed the net sum paid by the people of our own city. That doesn't alter the value of the policy. Philadelphians believe, for business reasons, in splitting the municipal expense burden so as to reduce the tax rate to its minimum level. And that city has prospered under such a policy.

What We Must Do.

We can readily see that if on top of our present tax rate we pile the coming sewerage charges, our tax rate is certain to leap to a prohibitive level. Such a policy will produce a rate which in five years will do our city an industrial damage that a whole generation of subsequent work will not be able to wholly overcome.

This is one reason in favor of providing for sewerage charges by sewer rentals.

There is another reason: the sewerage connection is really a service to the property and a direct benefit to it.

Hundreds of properties, which now have no sewerage connection, are put to the yearly expense of cleaning cesspools and otherwise maintaining sanitary conditions. The sewerage maintenance tax will be very little in excess of those costs, if in excess at all. And instead of paying year by year to clean out a well in the back yard, and still have a nuisance on the premises all the time that is liable to cause sickness to his family, the house owner will pay approximately the same, or less, and be rid of the nuisance and have sanitary connections with which he will have no further trouble, since if a sewer gets out of order the city will have to fix it.

The sewer rents, it is estimated, will raise an amount about equivalent to what would be raised by thirty cents on the tax rate. In other words, a householder who pays the sewer rent

will have a tax rate of thirty cents less than it would be if we do not have the sewer rents.

On two-story dwellings the rates are only $4 for one toilet and $6 with two toilets, a little more on a three-story dwelling, and a little more on a four-story dwelling. On office buildings, hotels, factories, apartment houses, etc., the charges are $8 for the first toilet and $4 for every additional toilet.

If the home owner will make the calculation of thirty cents on the tax rate he will find it will amount to about as much as the sewer rent charges in this bill.

It may be asked, why not then leave it in the taxes if it costs as much one way as the other; and the answer is, because it helps to build a greater Baltimore, to pay it as a sewer rent, instead of in the general tax rate.

We cannot build a greater Baltimore without growing; we cannot grow without attracting people from the outside to come and live with us, and money from the outside to come and be invested here; and nothing will so much help to attract people and capital to Baltimore as a low tax rate.

In addition to this the connection with the sewerage system is a direct benefit to the property. In many cities sewerage systems are owned by private corporations and every property-owner connecting with it pays a sewer rent.

For these two reasons, first, because it is a direct benefit to the property, and secondly, it will enable us to show to the world a tax rate thirty cents lower than it otherwise would be, I heartily recommend to the people the adoption of the sewer rent system.

Making Sewer Connections.

Plan to help the householder to finance the cost of entering the new system.

The sewerage plans contain another special proposition in which a large element of the public is interested in a monetary way. It has fallen to the lot of the present administration to take the initiative in this particular problem. It has worked

out a practical solution that will prove itself a great boon to those who take advantage of the city's offer.

The proposition itself grows out of that all-important moment when householders are ordered by the Health Department to connect their properties with the new sewerage system. Unless some advance provision were made to assist the poorer classes of our citizenship, the costs of making the required connections would certainly entail a severe hardship on those who are not supplied with ready money.

The administration has worked with especial care to evolve a plan which will help those who need helping. The plan is so developed that it will give assistance where assistance is needed, and yet do so in a way that will cost the city absolutely nothing when the final settlement is made.

Under this plan the city will pay for the connections, and the householder will be given five years in which to reimburse the city. Each year's instalment, plus the interest, will be added to the tax bill, thereby making it safe for the city as well as easy for the householder.

The connection, in such cases, will be made by the City Engineer's Department, under the supervision of the Health Department. This will guarantee proper work, will avoid extortionate charges, and will assure a plumbing job fully up to the fixed standard.

This plan has been almost universally approved. The relief that it will afford has sent a thrill of satisfaction through many a hitherto disturbed household in different parts of the city.

Rigid Economy.

Department Heads to be Held Responsible.

I intend, as far as it can possibly be brought about, that every dollar expended by the city shall produce a full dollar's worth of results. Every *department head* will be held strictly accountable for the expenditures of his department. Useless expenditures will not be tolerated.

Reference to the Comptroller's reports will show that for years the departmental costs have been mounting up at rather a disturbing rate. It is true, that our city has been growing; and this growth proportionately augments the burden of responsibility which each department must carry.

Even after making allowances for this natural growth, I am still of the opinion that the departmental costs can be scaled to a lower level. It will be my endeavor to bring this about. As an aid in the accomplishment of this purpose we plan to have a municipal storekeeper, or central agency for handling city properties and tools, thereby insuring their care and avoiding unnecessary purchases. In this way many a thousand dollars will be saved to the city; the wear and tear on tools and other property, and also the percentage of property losses will be reduced to a minimum. At the same time it will provide a central distributing machinery for municipal property. The aggregate waste of working hours will thus be reduced to a minimum.

Value of Prompt Decision and Action.

Public affairs, like private business, suffer very often for the want of prompt decision and vigorous action. The homely modern saying: "Do it now!" can be applied with great advantage to the public business. A broader and better motto is the Scriptural injunction: "Whatsoever thy hand findeth to do, do it with thy might." I have endeavored to apply this to the city's affairs. A good while before my term began, there had occurred a defalcation, amounting to $67,000. Suits were pending against the bonding companies, which were raising various defenses. By aggressive action the companies were brought to a settlement of $55,000, which was accepted rather than continue the litigation perhaps for years with the possibility of losing.

The school situation demanded firm action. Despite all the hysteria which was worked up over that problem, one thing is undeniable: that the internal school situation was in a state of ugly fermentation. Fourteen hundred of the elementary school teachers were in a state bordering on revolt. There was a wide-spread conviction as to the cause of the fermentation. It seemed to circle around one personality.

There is no man so lofty that his prestige is superior to the public good. Public men are public servants. Public servants are expected to acquiesce in the public's demands.

Our school situation presented a case in which one of two things had to happen. Harmony had to be bought at the expense of a certain removal or else discord would surely continue. Such a condition could not be permitted to continue.

Vigorous action might be disagreeable, but disagreeable things have to be done sometimes in order to produce wholesome results. Vigorous action was used, and the result thereof is daily proving itself to be exceedingly wholesome in every detail.

Notwithstanding the hysterical criticism of Grasty, and the disapproval of perhaps many good citizens, I felt at the beginning, I feel more so now, that the action taken in connection with the School Board was the wise course to pursue and would be productive of good results.

Vast volumes of misrepresentation have been directed against the new conditions. A large measure of malicious ridicule has been directed against the changed order of things. But, little by little, cold hard facts have been silencing misrepresentation and wholesome developments have been putting ridicule to shame.

Those who first denounced in ugly terms the firm measures pursued in connection with school matters, find themselves embarrassed by the trend of events. All the horrible prophecies that were made have been completely contradicted by actual

facts. The public now sees a dignity of procedure on the part of the School Board, where formerly nasty controversies were of frequent occurrence. The public sees an encouraging esprit de corps among all the teachers, where for years such a thing was hopelessly lacking. The public finds that every good point of efficiency incident to the recently existing system is being carefully maintained; and that those good points have been strengthened by improvements in organization. In the School Board and among the teachers harmony has succeeded discord, and there is a revival of good feeling all over the city, which is evidenced by the fact that this year marks the highest attendance of pupils ever recorded in the history of Baltimore.

The elementary school teachers, fourteen hundred in number, and who are the backbone and body of our school system, are satisfied and harmonious. The School Board is working harmoniously and efficiently, and there is no politics, either of cliques or individuals, now in our system.

The present School Board have undertaken a strict inquiry into the book and supply question, with the result that they have already discovered and have stored at the disused School No. 82, books to the number of 188,000 and of the value of $81,000. Many of these books have never been unwrapped from their packages, and have been permitted to mould in the cellars of the schoolhouses.

What was the motive for this state of affairs can be determined by each one for himself. Appended to this Message will be found a report from School Commissioner Thanhouser, giving the result of the investigation to date.

Saving the People's Money.

The present Board of Awards have found in several instances that money could be saved to the people by exercising the power given by the Charter of rejecting all bids when, in the judgment of the Board, the bids were too high.

A few days after my term began, there came before the Board a bid of the Allis-Chalmers Company for installing a pump in the pumping station, the bid being for $166,366. There were certain circumstances connected with the matter which induced the Board to reject the bid and readvertise. Upon the new bids the contract was awarded to a perfectly responsible bidder for $114,000, thus showing a saving in that one item of $52,366, or about 33⅓ per cent.

At another time the bids came in for one of the large sewer contracts and the Board decided to reject all bids and readvertise, and upon the readvertisement the contract was awarded to a responsible bidder for $12,000 less than the lowest of the former bids.

Again bids were advertised for hydrant-heads for the High Pressure Pipe Line System, and only one bid was received, and that for thirty hydrant-heads at a price that seemed to the Board large. By holding the matter up, the same bidder was induced to lower his bid and to accept it for one-half the number of hydrant-heads, thus giving the city an opportunity to test this new article by actual experience, before investing so much money in the experiment.

Water Supply.

Unfortunately there has been great delay in providing the increased water supply for Baltimore city under the Act of 1908, providing for the Five Million Dollar Water Loan, but this administration is not responsible for that delay.

In the latter part of February, and the early part of March, 1908, certain letters passed between the President of the Water Board and the Warren Manufacturing Company. These letters are claimed to form a contract binding the city to pay $725,000 for the property of the Warren Manufacturing Company. In one of these letters from the Warren Manufacturing Company to the former Water Engineer, the request was made that no publicity should be given to the matter, and the whole matter

was kept a profound secret, not only during the session of the Legislature of 1908, which passed the Act authorizing the loan, but during the six months that intervened between that and the fall campaign, and during the campaign; and this Warren deal was never known to the public until after the loan had been ratified in the fall of 1908. It was then discovered that the Water Board had attempted to make an alleged contract for $725,000 without ever consulting the Board of Estimates or submitting the contract to the City Solicitor for his approval, as the law required. There was a great outburst of public indignation that led to an investigation by the City Council, through a special committee, in the fall of 1908, which was conducted at great length, more than 1,600 typewritten pages of testimony having been taken; and the special committee, composed of Messrs. Numsen, Bond, Betz, Cherry, Downs, and Mullikin, unanimously reported that, in their judgment, $350,000 would be considerable more than could be obtained if the property were purchased by any private individual or corporation, and recommended as follows:

"If, therefore, after examination by the consulting engineers, the site at Warren is regarded as necessary to the proposed reservoir improvement, this committee believes and recommends that the City of Baltimore should not abide by the alleged contract with the Warren Manufacturing Company, unless compelled to do so by judicial decision. This recommendation the committee believes is justified by the evidence in the case and due regard for the public interests."

This report can be found in the Second Branch City Council Journal of January 18, 1909, pages 547 to 554.

Following this investigation, the then city administration remained in office for more than two years without taking any step toward the building of a higher dam on the Gunpowder.

Not long after my term began I called my advisory committee together and discussed with them the water proposition, and after hearing their advice on the subject, the Water Board, with my concurrence and the concurrence of the Board of Estimates, decided to proceed to build the dam at an eleva-

tion that would not injure the property of the Warren Company, and would sufficiently increase the water supply of Baltimore city for a good many years to come. The Water Engineer thereupon proceeded to prepare plans for such a dam, but actual work on the dam was delayed by a suit by the Warren Company and by an injunction against the city, issued by His Honor Judge Heuisler, without notice, and before the expiration of the time allotted to the city to show cause why an injunction should not issue. The City Solicitor promptly filed a motion to dissolve the injunction, and, at the request of the City Solicitor, His Honor, Judge Bond, appreciating the important public interests involved, assigned an early day for hearing the motion. After a lengthy trial and full arguments, the Court dissolved the injunction, and decided that the alleged contract was not binding on the city. The decision was a complete victory for the city. Promptly after the decision was made and the injunction dissolved, the Board of Awards proceeded to award the contract, and the contractor has begun the work.

It is gratifying to be able to report to you that within one year after my term began, and within eight months after the appointment of the present City Solicitor, the Warren deal, which had delayed an increased and improved water supply for our city for more than three years, has been tried out in court and set aside, by the Court's decree, the contract for the new dam has been let and the work is now going on.

The decision in the Warren case not only relieved the city of a purchase at an exorbitant price, but it will also have a wholesome effect upon other property holders whose property will be needed by the city.

The exorbitant price for the property of the Warren Company mentioned in the alleged agreement seemed to have set the pace for other land owners in the valley of the Gunpowder River, and some of them were asking $1,000 an acre for ordinary farm land, because they thought the City of Baltimore needed it.

When I came into office I found that approximately a half million of the five millions had already been spent, so that we have available for the acquisition of the necessary property, the construction of the dam, and additional tunnel and filtration plant, and additional large water mains, only $4,500,000; and if we were compelled to pay any such exhorbitant prices as in this Warren deal, we would not have nearly enough money to make the improvements.

In addition to our victory in the Warren suit, we succeeded, after a hard and persistent fight, in securing the passage by the Legislature, of a new condemnation law, under which the condemnation of the remaining property needed for our new reservoir will take place before juries in court, instead of sheriff's juries. This insures the acquisition of the property needed at reasonable prices, and will no doubt save the city hundreds of thousands of dollars.

The city has already acquired all the property immediately needed for the new dam, and proceedings have been instituted and other steps have been taken to acquire before the dam is completed all the property that will be needed for the new reservoir.

Work in the Legislature of 1912.

It gives me pleasure to report to you that we secured from the recent session of the Legislature, a great deal of legislation very important from the city standpoint, in my judgment. Various bills having been prepared by the City Solicitor, were carefully considered by the Board of Estimates, and after being finally determined upon, were presented to the Legislature. The City Solicitor and myself, personally and by letters and circulars, diligently urged these various measures upon the members of the Legislature, and practically everything we asked for was passed by the Legislature.

Perhaps the most important piece of legislation secured was the new condemnation law, doing away with the old farcical method of having the value of land taken for public use

assessed by a sheriff's jury, assembled, as they usually did, in some hotel or saloon, and instead thereof substituting a trial before a jury in court presided over by a judge. This, in my judgment, is not only an important reform in the law, but it will save the city hundreds of thousands of dollars in the cost of property to be acquired in connection with the increased and improved water supply.

We also succeeded in obtaining a law providing for the special paving tax above explained; a law to submit to the people a provision for sewer rentals which, if approved by the people, will enable us to have a tax rate thirty cents lower than it otherwise would be; an Act authorizing the city to borrow money to make sewer connections with houses of owners unable to make them themselves; an Act to refund to the city $21,000 overpayments to the State hospitals for care of the insane in 1910; an Act providing for the State paying to the city $5,000 for 1913, and the same amount for 1914, to help pay for repairs of the iceboat "Annapolis;" an Act authorizing the submission of a two-million-dollar loan to extend the conduit system; an Act authorizing the submission of a two-million-dollar loan for the purpose of building the new Light Street Bridge; an Act authorizing the Board of Estimates to make an extra appropriation to fit up the city for the National Convention; an Act authorizing the submission of a constitutional amendment, to the people, providing for the taking of property, within the city, for public purposes upon paying the amount of the appraised value as fixed by the appraisers appointed by the Court, and giving security to pay any additional sum that a jury might finally award, thus affording every security to the property-owner and at the same time allowing public improvements to be made promptly without waiting the end of litigation over the value of the property; various amendments to the provisions for the opening of streets whereby the process is simplified and the time required is very much shortened; an Act amending the provisions of the Charter with relation to the harbor so as to protect the city

from liability for accidents such as occurred several years ago at Miller's Wharf, and for which the city has been held liable by the Federal Circuit Court of Appeals to an amount of about $10,000; an amendment so as to permit an abatement of taxes on all personal property used in manufacturing, instead of as heretofore, only the plant, for the purpose of encouraging manufacturing; an amendment giving the city power to regulate shade trees; a provision giving the city power, if necessary, to own and operate the Broadway Ferry; and various minor amendments to the present Charter, which experience suggested would be improvements.

Municipal Ownership of Water Fronts.

Foresight suggests the development of an important project along the shores of the Middle Branch.

The people of our city are beginning to realize what a splendid future Baltimore has in the way of industrial development. Significant inquiries from big out-of-town interests show very conclusively that others besides ourselves are aware of the turn of fortune in our direction.

What we need is to foster the spirit of confidence among ourselves. It is time for our people to talk Baltimore, to laud Baltimore, and to invest their money in Baltimore projects. Baltimore money should be utilized here for our own development.

There is tremendous meaning behind the activity on the part of the various railroads. They see the coming possibilities of Baltimore, and are wisely planning in advance to meet the growth which they see is inevitable.

It is the city's duty to be just as enterprising as the railroads. It will be very poor business for us to sit down until the rush is upon us and then leap into action. We should be able to perceive what is coming; and prepare to meet the coming development by wise anticipatory measures.

I wish to direct your special attention to our water front development. The city, through its own municipal agencies, has already established the nucleus of an industrial colony on the old Quarantine property. That nucleus will be the starting point from which industrial activity will spread up and down that shore. If properly handled it means that the Middle Branch section of our water front is certain to witness a substantial industrial expansion in the near future. In the end that expansion will make that shore line one of the most thriving localities in and around the city.

The trend just now points in that direction. All that is needed is the infusion of a little vigorous enterprise into the idea. The results will surely follow. The most important part of that enterprise should be started and led by the municipality. The city, in its attitude, should be liberal and progressive. It should help to create opportunities.

New Light Street Bridge and New Highway.

To this end, I want to direct your special attention to the rebuilding of Light Street Bridge, together with the incidental possibilities connected with that project. The yearly costs of maintaining the present wooden structure, capitalized, would almost pay for the construction of a new bridge. The present frame bridge is in an advanced state of decay; we have this year set aside the sum of $28,000 for repairs and it would probably require that much annually.

We deemed it wise, therefore, to obtain from the last Legislature authority to submit to the people a proposition for a loan to build a new Light street bridge. A proper Act for that purpose was passed by the Legislature, and the matter will be submitted to the people. Bound up with the construction of a new bridge is a chance for the city to lay the basis of a very valuable water front development. That development should extend itself both above and below the new bridge, and if possible, on both sides.

It matters not over which of several tentative courses the new bridge may be laid, the possibilities for water fronts remain the same. On both the Baltimore county and Anne Arundel county sides as well as on the city side, there are large areas of flats, which at the present time, are useful to nobody. In reality, in their present state, these flats have no value, but if taken up by the municipality, may be used for cheap factory sites.

Those flats should be acquired at once. When purchased, the city should begin forthwith the evolution of plans for the conversion of these flats into solid water fronts. That will necessitate a gradual extension of the bulkheading, and filling in behind the bulkheads.

Such a process, however, is not expected to be sudden. The development will extend over a series of years and along definite plans. It should be made to grow; and, yet, grow in a way that will not burden the city financially.

What will be the effect? It will give the city control of the water front at points where the city should witness a great future industrial development. It will put the city in a position where it can encourage and promote industrial growth where otherwise it might be retarded if those water fronts were controlled by private interests.

A wise city always acts in advance upon matters of this far-reaching importance. An enterprising private corporation, under like conditions, would see the coming opportunities and would seize them. Should Baltimore, as a municipality, be any the less enterprising? Had the city in the past possessed itself of more of its water fronts, we would be better masters of the situation in other parts of the city than we are now. It is well, therefore, to profit by that lesson. The water front problem is going to be the all-controlling item in the coming

competitive struggle between the Atlantic Seaboard cities. It is our duty to prepare a situation which will redound to our great advantage in the struggle that is sure to come.

Extending City Limits.

TERRITORY WHICH LOGICALLY SHOULD BE INCLUDED IN THE MUNICIPAL BOUNDS OF BALTIMORE.

The importance of this water front acquisition presents itself with double significance when we stop to realize that those same shores are certain, in the march of time, to be incorporated in the limits of Baltimore city.

Conditions exist under which there should be an extension of the city limits. The present conditions are hampering the city's growth, and preventing it from taking proper rank among other great cities.

Baltimore is Maryland's great city. It is one of the country's great cities. It is the chief metropolitan center of the South, and the gateway to the North. It seems but fair, therefore, that we should expect Maryland, as a whole, to foster her and to help in adding to her growth and prosperity.

All around us is a zone of closely connected suburban sections, which, in reality, are just as much a portion of Baltimore as is the corner of Charles and Baltimore streets. Those sections should be with us, as one city.

Brilliant Illumination.

PLANS WHEREBY THE CITY'S SPECIAL ELECTRICAL DISPLAY WILL BE MADE PERMANENT.

In anticipation of the Convention activities, the city prepared for an extensive improvement in its lighting system.

There is a sensible business way of handling even this addition to the Convention features. It would have been foolish to spend thousands of dollars merely for transient lighting.

The practical thing to do was to make the illumination as attractive as possible, but do so in a way whereby the greater portion of the lighting scheme will be made permanent.

To that end, the present administration has been working. Investigation has been made of the most striking of the various municipal lighting schemes. Our Superintendent of Lamps and Lighting has been studying the most effective features utilized by other cities, with the view of adopting those particular parts which can be combined into a most beautiful and useful display for our own city.

The regular appropriation, plus the special Convention appropriation which we have obtained the sanction of the Legislature to make, will provide us with a fund that will enable us to make the city more electrically beautiful during the future as well as during the recent Convention period than has ever been witnessed in the history of the city.

Belt Line and Industrial Growth.

Municipal activity pledged in the growing movement to make Baltimore a great city.

The administration is committed to the pledge of co-operating with any and every movement that promises to build up the business interests of the city. My special ambition is to inaugurate a spirit of practical enterprise that will multiply our industrial possibilities. The potentialities of a great manufacturing center are here. All we need is to cultivate the soil that is at our very door.

Our local capitalists should unite in this undertaking. Much of the local money which is sent elsewhere for the exploitation of other communities should be operated at home. Our banking conditions should be liberalized, so that money will become mobile—circulating with readiness where it will do great good.

The public hardly realizes the alluring prospect which presents itself to Baltimore. Movements are developing which promise to make us a great railroad center. The big Pennsyl-

vania and Baltimore and Ohio systems are here; the big New York Central system, of which the Western Maryland has become a part, contemplate immense developments here. And there is every possibility that another big system, desirous of reaching tidewater, will come our way over an available route which can be procured. That means much for the future of Baltimore.

In this connection, I suggest the construction of a municipal railway around the harbor and by the most available way to the deep water of Spring Gardens. This would connect us up with all our great railroad systems, and could be made at the same time an extremely popular enterprise for Baltimore. Our business enterprises will need the shipping advantages of all the railroad systems. Hence, the necessity of a carefully planned and skillfully projected municipal railroad around our water front.

Value of the "Fallsway."

Few realize the great advantages which will flow from this improvement.

The public can realize, in view of Baltimore's great business outlook, what practical benefits are wrapped up in the completion of the "Fallsway." The construction of that important work carries with it a series of valuable benefits to the entire city. Not only does it cover over the ugly and malodorous Jones' Falls, but it will provide one of the finest trade and commercial highways to be found in any city.

Moreover, the construction is being planned upon a basis that will redeem a broad strip of land along both banks of the old falls. The fact that future floodings will be impossible, plus the advantages of the new highway's presence, will give to surrounding land largely increased taxable value. That will help the city treasury at the same time that it will help the private property-owners.

Nor should it be forgotten that this covering of Jones' Falls means the dispensing with the various bridges and multitudes of pipes which now cross the stream.

And the cost of it all? The aggregate cost is estimated at $1,300,000. That sum will create a commercial highway of immeasurable value. The old retaining wall of the falls cost $2,000,000, and that wall created nothing.

I was the president of the Jones' Falls Improvement Association which was formed in the summer of the year 1906 for the purpose of converting this open sewer into a covered one, and erecting a driveway on the top. We obtained the endorsement of the trade and commercial bodies of the city as well as other organizations. It is a great gratification to me, that under my administration, this work is now well under way, and will in a short time now be an accomplished fact. I am proud to have contributed my share to this enterprise.

Safeguarding Money and Accounts.

The Continuous Daily Audit and the New Method of Handling Deposits.

There are several things in connection with the financial system of the city to which I wish to direct your attention.

Among those special champions who advocated a new charter there is current an argument urging the necessity of watching municipal accounts. The argument is unfair, because it is presented in a way that carries with it the inference that the accounts are not properly watched under the existing charter.

I want to say that such an argument or such an inference is incorrect. It is doubtful if any business corporation in this city is watched as closely as is the municipal corporation. Every day an expert auditing company, entirely dissociated from the city administration, is at work in its examination of the various departments. This continuous audit, in its effect, is not merely jacking up the system, but it is also proving that the bookkeeping and all of the facts agree in detail.

No department ever knows when this auditing company is going to examine it. It is an independent, non-governmental functionary which is paid, under contract, to examine and supervise the accounts of every department—thereby guaranteeing accuracy in the books, and also insuring the reality of the items which the books are supposed to show.

The municipal system has been put upon an up-to-date basis. Under the new Comptroller and the new City Register, very important improvements have been made in the voucher and checking system, whereby the checks and vouchers, as in big business corporations, will be on one and the same sheet, and checks mailed to creditors instead, under the old system, of requiring the creditor to call at the City Hall for payment.

In this way, the evidences of debt and the proof of payments are so thoroughly fixed together that the system of settlement becomes to that degree, somewhat better safeguarded.

As to the handling of deposits, *under the present method in the City Hall*, it is doubtful if any corporation in the city has greater safeguards than are thrown around the city's money. The banks send for our deposits. They are not carried to the banks. The representatives of the banks come to the City Register's office; they enter the amount of the deposit on the bank book; and then, as the *agent of the bank*, they take the money to the place of deposit. In this way the banks take all the risk. The city takes none. When the bank receives a deposit, the cashier thereof is made to forward next morning to the City Comptroller and to the City Register duplicate copies of the deposit tickets. These are compared at once with the entries on the bankbooks. Under this method, defalcation *from the city* is practically impossible.

This is explained in full; because I feel that some of the advocates of the new charter in their statement that a new charter would introduce an up-to-date municipal accounting, might, by such an argument, create the impression that the present municipal system is loose and antiquated. As a matter of fact, the present system is strong and effective.

Abolition of the Fee System.

Movement to substitute salaries where heretofore fees were collected.

Another item which the new charter advocates advance is that the proposed new system will put certain employees on salary, where now they collect fees. Permit me to say that the abolition of the fee system is not dependent upon a new charter. I am against the fee system myself, and this Council has so recorded itself; nor is our opposition one of talk merely. I had an ordinance prepared, which this City Council passed, putting the bailiffs in the Tax Collector's office upon a salary basis, in lieu of the fee system. This saved the city $14,000 for the year 1912, and each succeeding year thereafter the saving will be larger than $14,000, the additional saving being in proportion to the yearly growth of the city.

Merit System in City Hall.

The public is getting a dollar's worth of results for a dollar's worth of pay.

In these days when much is being read and much is being printed about the so-called "merit system," I feel that it would be well for us to stop and ask what it all means.

The advocates of a certain type of civil service machinery have appropriated the term "merit system" as if no service is meritorious except that produced by their own peculiar machinery.

I have no intention of discussing the civil service problem here, but there are one or two popular misconceptions, due to this misappropriation of terms, which I want to correct.

Any system is a "merit system," provided it produces efficient service. The absence of any special civil service machinery is not of itself an evidence of the absence of merit. The only proof of merit is to be found in the results of the public service; not in the machinery that selects public servants. If

the results are excellent, the very fact that the results are excellent is of itself a very clear demonstration that behind those good results must be an efficiency of service.

I believe that for the money paid, the city today is getting as efficient service as any of the big private corporations in Baltimore.

That is a broad statement, but it is susceptible of proof. Outside auditors who have examined the various city departments have openly commented on the high average of efficiency. There is a diligence, loyalty and attention to duty which is keeping this big municipal corporation, with its far-reaching problems and its myriads of details, fully up to the high level of expectation.

The average of present efficiency in the City Hall ranks favorably with any business corporation in the city.

The United Railways, the Consolidated Gas Company, the big railroad companies, all have their breaks. That does not alter the fact that they are carefully and efficiently served. Nearly every business organism that comes in contact with the public is liable to meet its experiences of denunciation.

Even so with the city, except, that the criticism directed against the municipal service is usually poisoned with a touch of personal or political malignity.

The great mistake made in estimating the municipal service is due to the false premise upon which most of the critics base their arguments. The extreme civil service faddists found their claims on the ridiculous theory that any man, who ever takes an interest in politics, is a man, who because of his political interests, either cannot or will not give efficient service if he happens to be in public employ. I happen to know better. Anybody, who knows anything about the public service, knows better. A careful comparison of the work performed by the man of political tendencies will show that his measure of substantial results equals, if it does not exceed, non-political persons

who may be doing similar work but in different fields. Interest in politics doesn't make a rascal of a man. Interest in politics doesn't make a laggard of a man. As a general rule, men who are influential in politics are usually possessed of an intelligence somewhat above the average; and that intelligence is usually accompanied by an active, energetic spirit.

There have been comparatively few dismissals in the City Hall. Substitutions will occur where the service can be improved; but these are only a few isolated changes, compared with the five thousand places in the public service.

Helping to Compel Efficiency.

Since I have been in the City Hall I have been considering the advisability of establishing a municipal bureau of efficiency. With that end in view I have examined the workings of the New York, Philadelphia, and Milwaukee bureaus.

It is apparent to me that these bureaus may be excellent practical censors. But we have no public funds in hand out of which to defray the expenses of such a bureau.

While the matter, as to the value and advisability of such a bureau, was under consideration, I received a letter from Mr. William H. Maltbie, of this city, informing me that certain Baltimoreans, to me unknown, were about to undertake this work on their own behalf. These men have volunteered to establish, by private enterprise and subscription, a bureau of municipal and State research and efficiency.

I hope that this private movement may have no partisan object and may be intended solely for the public good. I have accepted it as being from a non-partisan standpoint, and, as long as it remains non-partisian, I will aid it to my utmost ability. I believe that a non-partisan, fair-minded investigation of the conditions at the City Hall will contradict and set at rest a lot of defamatory rumors that have been and are still being circulated by a certain section of the daily press.

SEVENTH STREET; HYDRANTS IN MARKETS; HEATING AND LIGHTING PLANT; CITY HALL ILLUMINATION; BAY VIEW IMPROVEMENTS.

(1) The important opening and paving of Seventh street, from North avenue to Edmondson avenue, has been lifted out of a rut of slow development and has been pushed along with zeal and speed. This street will provide an attractive and convenient highway, skirting the western section. It will provide a much needed thoroughfare whereby traffic can comfortably, as well as directly, pass over a smooth paving from the northern section of the city to the western and southwestern sections.

(2) The administration has received and put into concrete form the proposition to utilize the new pumping station for a new municipal heating and lighting plant, thereby saving the city an expenditure of $20,000 a year, at the same time protecting the municipal buildings from damage hitherto caused by the smoke and dust from the old heating system.

(3) There have been an installation of a proper number of hydrants in the various markets, thereby multiplying the facilities for promoting cleanliness and otherwise protecting the sanitary condition of the market premises.

(4) The outside lamps of the City Hall, which for years have been kept dark, thus giving the municipal building an appearance of deadness at night, have been put into use. The front of the Hall now presents a more attractive appearance. The new illumination will fit in perfectly with the contemplated new lighting scheme, which is to brighten up the whole city.

(5) The installation of the heating and lighting plants at Bay View has, for some reason, moved with exasperating slowness. So soon as the administration discovered that the contractors apparently were trifling with the city, vigorous action was applied that woke up the contractors most effectually. As a consequence, the job of installation, instead of continuing at the original snail's pace, was soon pushed to completion.

Inasmuch as the City Charter requires that I submit to the Council a general statement of the financial condition of the city, I herewith present a summary for your careful consideration.

The City Comptroller's books, which are the general books of the city government, indicate that a balance of $1,849,378.26 was brought forward from 1910's accounts, which, with receipts of $16,732,845.57, by 662 receipt warrants, made the total receipts of the city for the year 1911 $18,582,223.83, and during 1911 a total of 14,754 pay warrants were issued, representing an expenditure of $16,749,259.24, leaving on December 30, 1911, a balance of $1,832,964.59 to be carried forward to 1912, which balance has been charged against the City Register, and duly verified by the City Comptroller, by cash in the City Register's office and certified balances in depository banks.

This balance of $1,832,964.59 is largely made up of unexpended appropriations for 1911 and previous years.

The surplus, arising by reason of excess of income received from the estimated revenue over the expenditures and becoming part of the general revenue of the city for the current fiscal year, was estimated by the Board of Estimates at $344,795.14, and this amount was taken into consideration by the Board of Estimates in the preparation of the tax levy for 1912.

The estimated amount necessary for the maintenance of the city government for the year 1912, as appropriated by the Ordinance of Estimates for the year 1912, is $23,580,038.95.

The estimated receipts from licenses, fees, rents and all other charges, including the amount believed to be collectible from taxes in arrears and also from taxes at fixed rates for the year 1912, are $17,202,261.01. Amount to be raised by taxation at full rate is $6,377,777.94.

Estimating 82⅓ per cent., collectible on $409,856,560, this representing property assessable at full rate, or $337,448,568, the Board of Estimates, on December 2, 1911, stated a tax rate

of $1.89 per $100 for the fiscal year 1912 would be necessary to produce the difference between the anticipated expenditures and receipts of the city, the product of the same being $6,377,-777.77, which is 17 cents deficient of the amount required, namely, $6,377,777.94.

In obedience to the directions of the Charter, I have now laid before you, gentlemen of the Council, a statement of the affairs of the city and plans of the administration for the next three years.

Our plans include the completion of a sewerage system, which we are assured will be the finest in the world; the replacing of at least half of the cobblestones of the city with improved paving; the building of a new up-to-date bridge across the Patapsco, so as to communicate not only with Anne Arundel county, as the present one does, but also with Baltimore county; the extension of the conduit system; the completion of the high pressure pipe line system; the reduction of the tax rate, if the people approve of the sewer rent measure; the completion of the easy grade highway of Jones' Falls; the completion of the new large storage reservoir on the Gunpowder; the enlargement of the parks; the building of a great recreation pier in East Baltimore; and other improvements for the health and recreation of the people; and the rapid building up of our manufacturing industry. We have already made a good start in the last regard.

These plans are worth your co-operation and the co-operation of all the people.

I bespeak for them the hearty co-operation of the City Council and through the members of the City Council, through the various wards the co-operation of the people of the city.

As we have begun, let us continue to make a record for doing things, and however much we may be misrepresented in hostile newspapers, we may feel confident that the people will see the new paving and the new sewerage system and the new Fallsway and the new bridge and other public improve-

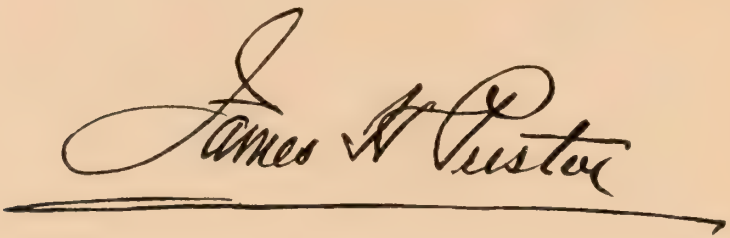
ments; that they will be encouraged by seeing the public work go forward to take a livelier interest in the growth and progress of the city.

I believe that there is a spirit of progress widespread among the people that will co-operate with you, gentlemen of the Council, and with the executive officers of the city administration in setting our city forward during the next three years in the march of progress toward a better and greater Baltimore.

To that end I pledge to you and the people of Baltimore the utmost of my ability and earnest endeavor.

I transmit herewith reports from the various departments, giving more in detail the work of each department during the year 1911.

Respectfully submitted,



Mayor.

Baltimore, August 5, 1912.

FINANCIAL

FINANCIAL

It is my duty to submit to you a statement showing the general financial condition of the city. This can best be done by reproducing here the figures reported to me by the City Comptroller, the City Collector and the City Register, together with certain miscellaneous financial information.

CITY COMPTROLLER.

JAMES F. THRIFT, Comptroller.

W. T. CHILDS, Deputy Comptroller.

The City Comptroller's books, which are the general books of the city government, indicate that a balance of $1,849,378.26 was brought forward from 1910's accounts which, with receipts of $16,732,845.57, by 662 receipt warrants, made the total receipts of the city for the year 1911, $18,582,223.83, and during 1911 a total of 14,754 pay warrants were issued, representing an expenditure of $16,749,259.24, leaving on December 30, 1911, a balance of $1,832,964.59 to be carried forward to 1912, which balance has been charged against the City Register, and duly verified by the City Comptroller, by cash in the City Register's office and certified balances in depository banks.

This balance of $1,832,964.59 is largely made up of unexpended appropriations for 1911 and previous years.

The surplus, arising by reason of excess of income received from the estimated revenue over the expenditures and becoming part of the general revenue of the city for the current fiscal year, was estimated by the Board of Estimates at $344,795.14, and this amount was taken into consideration by the Board of Estimates in the preparation of the tax levy for 1912. The actual surplus, however, was $458,019.48.

COMPARATIVE STATEMENT OF DEPARTMENTAL APPROPRIATIONS WITH THE FULL ASSESSABLE BASIS AND THE TAX RATE FOR THE YEARS 1908-1912.

Department.	1908	1909	1910	1911	1912
Appeal Tax Court	$42,200 00	$178,750 00	$68,805 00	$60,450 00	$60,850 00
Board of Fire Commissioners	1,296,560 00	1,582,289 40	1,151,734 00	978,840 84	1,089,780 00
Board of School Commissioners	2,168,865 81	2,132,525 00	1,951,976 75	2,836,652 75	2,103,137 75
Board of Police Commissioners	1,212,049 66	1,279,453 30	1,282,922 23	1,278,891 89	1,272,121 26
Board of Police Examiners	5,352 00	5,667 00	5,697 00	5,712 00	6,102 00
Board of Park Commissioners	1,031,323 35	658,178 00	567,255 73	626,890 04	549,737 05
Commission on City Plan				500,000 00	
Collector of Water Rents and Licenses	445,045 00	481,075 00	482,877 00	463,229 35	463,575 00
Courts	223,103 15	235,903 25	227,816 60	240,240 26	235,518 10
City Register	2,132,972 00	2,147,464 00	2,287,013 50	2,489,303 50	2,638,496 30
City Collector	37,750 00	38,100 00	39,600 00	42,491 00	76,268 00
City Librarian	20,128 07	30,145 88	27,020 00	27,215 00	27,515 00
City Engineer	601,168 93	853,551 60	682,050 67	653,716 05	602,239 23
Commissioners for Opening Streets	517,608 56	507,400 00	71,985 55	124,502 14	1,011,460 81
Commissioner of Health	154,380 00	149,380 00	174,872 50	223,365 84	203,105 00
Commissioner of Street Cleaning	767,579 03	720,800 00	768,666 00	883,676 00	822,658 22
Comptroller	42,980 00	53,050 00	47,830 00	57,946 65	49,700 00
Diary City Council	59,085 00	62,085 00	59,085 00	59,085 00	63,447 00
Department of Legislative Reference	3,710 00	3,510 00	3,630 00	3,630 00	3,690 00
Electrical Commission	214,378 48	243,396 00	391,596 00	238,476 00	229,000 00
Free Public Bath Commission	48,362 00	80,397 00	58,716 00	64,110 00	88,599 00
Harbor Board	1,017,546 73	434,758 00	656,264 00	1,120,955 67	1,157,959 00
Inspector of Buildings	378,000 00	617,262 00	429,051 18	846,705 33	391,666 18
Liquor License Commission	16,200 00	19,233 33	18,100 00	17,400 00	17,400 00
Law Department	44,243 19	56,017 50	49,600 00	50,345 82	48,000 00
Mayoralty	14,848 00	14,848 00	49,848 00	23,598 00	14,848 00

Municipal Factory Site Commission					6,000 00
Miscellaneous Annual Appropriations	70,707 49	29,523 00	00,225 00	41,500 00	40,200 00
Miscellaneous General Expenditures	82,166 00	86,503 00	103 662 00	132,033 55	138,858 00
Paving Commission				500,000 00	1,000,000 00
Reformatories	121,777 00	152,677 00	150,983 00	121,923 00	122,380 00
Superintendent of Lamps and Lighting	314,400 52	346,500 00	304,465 27	374,094 29	395,830 98
Supervisors of City Charities	450,972 44	537,750 00	591,709 00	474,684 00	572,118 00
Supervisors of Elections	163,401 00	138,421 00	152,928 50	213,745 00	156,003 00
Superintendent of Public Buildings	104,614 80	92,715 00	93,615 00	103,283 33	88,900 00
Sewerage Commission	2,835,531 00	2,381,321 00	1,427,222 00	1,725,312 00	4,596,881 00
Sinking Funds	858,225 33	717,822 51	733,939 67	769,780 50	948,271 07
Topographical Survey	12,970 00	12,735 00	12,270 00	14,280 00	13,995 00
Visitors to the Jail	62,920 00	62,920 00	65,889 00	65,150 00	64,150 00
Water Department	1,190,152 64	2,169,875 00	1,794,320 00	2,857,067 00	2,209,510 00
Total	$18,765,002 18	$19,316,002 31	$17,116,635 15	$21,310,281 80	$23,580,038 95
Full Assessable Basis	$624,482,590 00	$655,401,372 00	$682,633,316 00	$698,135,168 00	$723,800,340 00
Tax Rate	$2 00	$1 95	$1 99	$1 98	$1 89

SUMMARY OF APPROPRIATIONS FOR 1912.

Department.	List No. 1.	List No. 2.	List No. 3.	Total.
Inspector of Buildings	$279,890 00	$111,776 18	.....	$391,666 18
Commissioner of Street Cleaning	822,658 22	.....	.....	822,658 22
Superintendent of Lamps and Lighting	380,380 10	15,459 88	.....	395,839 98
Harbor Board	108,891 00	1,049,068 00	.....	1,157,959 00
Commissioner of Health	197,105 00	6,000 00	.....	203,105 00
Board of Fire Commissioners	944,930 00	144,150 00	$700 00	1,089,780 00
City Collector	76,268 00	.....	.....	76,268 00
City Engineer	440,180 00	156,500 00	5,559 23	602,239 23
Appeal Tax Court	60,850 00	.....	.....	60,850 00
Liquor License Commission	17,400 00	.....	.....	17,400 00
Commissioners for Opening Streets	10,400 00	1,001,060 81	.....	1,011,460 81
Supervisors of Elections	156,003 00	.....	.....	156,003 00
City Librarian	27,515 00	.....	.....	27,515 00
Superintendent of Public Buildings	88,900 00	.....	.....	88,900 00
Diary City Council	63,447 00	.....	.....	63,447 00
Mayoralty	14,848 00	.....	.....	14,848 00
Department of Legislative Reference	3,690 00	.....	.....	3,690 00
City Register	2,638,496 30	.....	.....	2,638,496 30
Comptroller	49,700 00	.....	.....	49,700 00
Law Department	48,000 00	.....	.....	48,000 00
Topographical Survey	13,995 00	.....	.....	13,995 00
Free Public Bath Commission	62,599 00	26,000 00	.....	88,599 00
Board of School Commissioners	1,814,419 00	163,500 00	125,218 75	2,103,137 75
Board of Police Commissioners	1,272,121 26	.....	.....	1,272,121 26
Board of Police Examiners	6,102 00	.....	.....	6,102 00
Supervisors of City Charities	486,618 00	85,500 00	.....	572,118 00
Visitors to the Jail	64,150 00	.....	.....	64,150 00

Reformatories	122,380 00			122,380 00
Miscellaneous General Expenditures	138,858 00			138,858 00
Courts	235,518 10			235,518 10
Board of Park Commissioners	434,198 27	115,538 78		549,737 05
Collector of Water Rents and Licenses	463,575 00			463,575 00
Water Board	613,010 00	1,596,500 00		2,209,510 00
Electrical Commission	10,650 00	218,350 00		229,000 00
Municipal Factory Site Commission	6,000 00			6,000 00
Sewerage Commission		4,596,881 00		4,596,881 00
Paving Commission		1,000,000 00		1,000,000 00
Miscellaneous Annual Appropriations			40,260 00	40,260 00
Sinking Funds			948,271 07	948,271 07
Total	$12,173,745 25	$10,286,284 65	$1,120,009 05	$23,580,038 95

COMPARATIVE STATEMENT OF EXPENDITURES FROM 1901 TO 1910, INCLUSIVE.

Departments.	1901	1902	1903	1904	1905
Fire Department—					
Salaries	$362,808 28	$374,302 21	$386,256 04	$407,503 50	$409,412 29
Expenses	110,681 00	103,346 93	114,412 86	114,410 00	117,100 00
Commissioner of Street Cleaning—					
Salaries	15,972 48	16,195 81	16,175 82	17,143 18	16,996 64
Street carts	84,288 25	85,354 50	86,348 50	92,369 43	98,370 69
Sweepers and scrapers	34,072 99	84,274 87	84,361 96	88,646 38	94,832 57
City Engineer—					
Salaries	27,353 60	28,500 00	28,679 82	30,456 24	32,557 45
Repairs roads, streets, etc	150,068 15	175,608 22	181,476 88	180,510 29	174,214 60
Police—					
Salaries	901,210 22	934,595 72	937,423 58	984,908 00	969,583 95
Expenses	62,755 24	67,508 17	67,334 98	74,142 71	82,311 75
Inspector of Buildings—					
Salaries	14,379 39	20 981 16	24,374 53	27,990 95	41,923 94
Repairs city property (consol.)	163,701 13	179,844 76	192,967 00	163,288 58	245,892 57

COMPARATIVE STATEMENT OF EXPENDITURES FROM 1901 TO 1910, INCLUSIVE—*Continued.*

Departments.	1906	1907	1908	1909	1910
Fire Department—					
Salaries	$469 962 92	$510,478 19	$578,010 66	$628,932 33	$680,227 89
Expenses	125,273 00	135,100 00	157,210 00	166,103 50	174,700 00
Commissioner of Street Cleaning—					
Salaries	16,972 22	16,957 49	23,456 06	25,676 39	25,777 50
Street carts	100,955 00	113,227 90	120,557 22	125,249 10	131,419 00
Sweepers and scrapers	103,819 92	40,261 85	126,152 82	132,400 26	142,697 64
City Engineer					
Salaries	34,716 62	37,321 16	44,535 41	44,661 58	43,819 65
Repairs roads, streets, etc	200,049 98	200,042 49	250,063 79	254,604 43	255,812 26
Police—					
Salaries	962,637 93	1,092,725 57	1,102,817 81	1,167,367 74	1,169,390 57
Expenses	93,726 32	97,190 59	99,307 00	88,207 85	74,419 62
Inspector of Buildings—					
Salaries	45,440 00	58,210 68	61,588 19	69,144 28	60,956 98
Repairs city property (consol.)	350,028 00	209,980 00	263,695 07	372,195 31	219,188 18

TABLE SHOWING APPORTIONMENT OF TAXES TO BE RAISED BY TAXATION AT FULL URBAN RATE ($1.89 PER $100) FOR THE YEAR 1912.

Taxes	Taxable Basis	Rate pr. $100	Per Cent. Collectible	Product of Same	Amount Required	Excess	Deficiency
General	$409,856,560.00	$.23 4/32	.82 1/3 %	$780,349.81	$779,810.92	$538.89	.....
Schools	"	.35 13/32	"	1,194,778.84	1,195,562.75	.....	$783.91
Police	"	.32 12/32	"	1,090,380.68	1,090,448.26	.....	67.58
Charities and Corrections	"	.18 5/32	"	620,061.74	620,616.96	.....	555.22
Interest on Stock Debt	"	.46 3/32	"	1,565,972.25	1,565,898.84	73.41	.....
Courts	"	.06	"	202,469.14	202,469.14	.....	.....
General Sinking Fund	"	.01 3/4	"	59,053.48	59,053.48	.....	.....
Funding 1936 Loan Sinking Fund	"	.01	"	33,744.85	33,744.85	.....	.....
Refunding 1940 Loan Sinking Fund	"	.02	"	67,489.70	67,489.70	.....	.....
Four Million 1945 Loan Sinking Fund	"	.00 1/2	"	16,872.42	16,872.42	.....	.....
Water 1916 Loan Sinking Fund	"	.02	"	67,489.70	67,489.70	.....	.....
Water 1922 Loan Sinking Fund	"	.00 1/2	"	16.872.42	16,872.42	.....	.....
Water 1926 Loan Sinking Fund	"	.01	"	33,744.85	33,744.85	.....	.....
Conduit 1922 Loan Sinking Fund	"	.01	"	33,744.85	33,744.85	.....	.....
Conduit 1928 Loan Sinking Fund	"	.01	"	33,744.85	33,744.85	.....	.....
Public Improvement 1940 Loan Sinking Fund	"	.02	"	67,489.70	67,489.70	.....	.....
Internal Improvement 1928 Loan Sinking Fund	"	.03	"	101,234.55	101,234.55	.....	.....
Burnt District 1954 Loan Sinking Fund	"	.02	"	67,489.70	67,489.70	.....	.....

Burnt District Impr. 1960 Loan Sinking Fund...					7,600.00		
Water 1958 Loan Sinking Fund.....					38,000.00		
Dock Improvement 1961 Loan Sinking Fund....					15,200.00		
Conduit 1958 Loan Sinking Fund					7,600.00		
Annex 1954 Loan Sinking Fund					17,500.00		
Annex Improvement 1951 Loan Sinking Fund ..					29,500.00		
New Sewerage 1980 Loan Sinking Fund	"	.09 20/32	"	324,794.24	37,000.00	794.24	
New Sewerage 1961 Loan Sinking Fund					76,000.00		
New Engine House 1957 Loan Sinking Fund....					8,800.00		
New School House 1957 Loan Sinking Fund					8,800.00		
School House 1961 Loan Sinking Fund.....					11,400.00		
Jones Falls Impr. 1961 Loan Sinking Fund.....					7,600.00		
Paving 1951 Loan Sinking Fund.....					59,000.00		
Total	$409,856,560.00	$1.89	.82 1/3 %	$6,377,777.77	$6,377,777.94	$1,406.54	$1,406.7
Deficiency.....	.....	.....	.....	.17	.....	.17	.....
	$409,856,560.00	$1.89	.82 1/3 %	$6,377,777.94	$6,377,777.94	$1,406.71	$1,406.7

MISCELLANEOUS FINANCIAL INFORMATION.

Taxable Basis of the City for 1912.

Assessable at Full Rate ($1.89 per $100).

Real estate		$328,120,398 00
Personal property (individuals, firms and foreign corporations)	$44,739,697 00	
Less plant exemption	4,903,535 00	
	39,836,162 00	
Personal property (Maryland incorporated companies)	$46,281,923 00	
Less plant exemption	5,281,923 00	
	41,000,000 00	
Distilled spirits in bond (est.)	900,000 00	
		$409,856,560 00

Assessable at Fixed Rates.

Real estate—Suburban ($1.26 per $100)	$16,438,656 00	
Real estate—Rural (65 cents per $100)	28,092,448 00	
Securities (30 cents per $100)	179,412,676 00	
Savings banks deposits (est.) (18¾ cents per $100)	90,000,000 00	
		313,943,780 00
Total assessable basis		$723,800,340 00

Estimates of Receipts to Apply on Appropriations for the Year 1912.

From Taxation.

Tax arrearages	$925,000 00	
Tax on securities, $179,412,676, 98 per cent. collectible, $175,824,423 at 30c	527,473 27	
Tax on suburban property, $16,438,656, 80 per collectible, $13,150,924 at $1.26	165,701 64	
Tax on rural property, $28,092,448, 80 per cent. collectible, $22,473,958 at 65c	146,080 73	
Tax on savings banks deposits, $90,000,000, 98 per cent. collectible, $88,200,000 at 18¾c	165,375 00	
Interest on taxes	75,000 00	
Penalties	13,600 00	
Penalties	13,600 00	
Amount carried forward		$2,018,230 64

Amount brought forward.....$2,018,230 64

From Miscellaneous Sources.

Liquor licenses	$1,100,000 00	
Sale of refuse from streets (Commissioner of Street Cleaning)	2,500 00	
Quarantine	15,000 00	
Permits for sheds (Inspector of Buildings)	750 00	
Inspection of meters (Superintendent of Lamps and Lighting)	2,000 00	
Sale of old material (City Engineer)	2,000 00	
Markets	65,000 00	
Wharfage	35,000 00	
General licenses (Collector of Water Rents and Licenses)	90,000 00	
Free Public Bath Commission	18,175 00	
Telephone conduits	30,000 00	
State tax on city loans (City Register)	820 00	
Sale of old material (Board of Fire Commissioners)	3,000 00	
City Librarian	100 00	
Topographical Survey	1,520 00	
Supervisors of Elections	200 00	
Interest of deposits	72,000 00	
Public franchises and minor privileges	20,000 00	
Commissioner of Health (transcripts, etc.)	700 00	
Dog licenses and fines	13,000 00	
Electrical Commission	110,000 00	
Water Board (water rents, sale of old material, etc.)	1,423,540 00	
Sundry accounts	5,000 00	
Rentals from city property	10,000 00	
Public wharves and docks	135,000 00	
Motor vehicles, licenses and fines	12,000 00	
Surplus, 1911	344,795 14	
		3,512,100 14

Board of Park Commissioners.

Railway park tax	$544,417 05	
Rentals and sales	5,320 00	
		549,737 05

Amount carried forward.....$6,080,067 83

Amount brought forward		$6,080,067 83
Board of School Commissioners.		
State of Maryland, account of public schools	$500,000 00	
Tuition fees	15,000 00	
		515,000 00
Department of Charities and Corrections.		
Reimbursement for board of the insane	$17,000 00	
Reimbursement for board of children	40 00	
Reimbursement for board of hospital patients	40 00	
Bay View Asylum	600 00	
Baltimore City Jail	12,000 00	
Fines	4,500 00	
		34,180 00
Interest on Stock Debt.		
(City Register's Department.)		
Water Board	$415,000 00	
Park Board	83,000 00	
Commissioners of Finance	148,365 00	
		646,365 00
Loans.		
General Fund 1955 Loan	$300,000 00	
Jones Falls Improvement 1961 Loan	500,000 00	
New Sewerage Improvement 1961 Loan	4,596,881 00	
School Fund 1961 Loan	207,049 18	
Conduit 1958 Loan	218,350 00	
Fire Engine 1957 Loan	30,000 00	
Dock 1960 Loan	12,000 00	
Dock 1961 Loan	1,037,068 00	
Paving 1951 Loan	1,000,000 00	
Water 1958 Loan	1,500,000 00	
Annex Improvement 1951 Loan	500,000 00	
		9,901,348 18
Sinking Funds.		
Park Board, Public Park Improvement 1955 Loan	$8,800 00	
Water Board, at 1½ per cent of receipts for Water 1943 Loan	16,500 00	
		25,300 00
Total estimated receipts from all sources, except amount to be raised by taxation at full rate		$17,202,261 01

Summary of the Estimates of Receipts for the Year 1912.

Taxes.

Tax arrearages	$925,000 00	
Tax on securities	527,473 27	
Tax on suburban property	165,701 64	
Tax on rural property	146,080 73	
Tax on savings bank deposits	165,375 00	
Interest on taxes	75,000 00	
Penalties	13,600 00	
		$2,018,230 64
Miscellaneous sources		3,512,100 14
Board of Park Commissioners		549,737 05
Board of School Commissioners		515,000 00
Department of Charities and Corrections		34,180 00
Interest on stock debt (Water Board, Park Board and Commissioners of Finance)		646,365 00
Loans		9,901,348 18
Sinking funds (Water Board and Park Board)		25,300 00
Total		$17,202,261 01

Recapitulation.

Estimated amount necessary for the maintenance of the city government for the year 1912, as appropriated by the Ordinance of Estimates for the year 1912	$23,580,038 95
Estimated receipts from licenses, fees, rents, and all other charges, including the amount believed to be collectible from taxes in arrears and also from taxes at fixed rates for the year 1912	17,202,261 01
Amount to the raised by taxation at full rate	$6,377,777 94

Estimating 82½ per cent. collectible on $409,856,560, this representing property assessable at full rate, or $337,448,568, the Board of Estimates, on December 2, 1911, stated a tax rate of $1.89 per $100 for the fiscal year 1912 would be necessary to produce the difference between the anticipated expenditures and receipts of the city, the product of the same being $6,377,777.77, which is 17 cents deficient of the amount required, namely, $6,377,777.94.

COMMISSIONERS OF FINANCE.

JOHN M. LITTIG, President.
JAMES H. PRESTON, Mayor.
JAMES F. THRIFT, Comptroller.
RICHARD GWINN, City Register.
HARRY FAHNESTOCK.

Receipts.

The receipts from all sources were as follows:

Cash to credit of sinking and special funds, December 31, 1910	$23,434 97	
Interest on stock and investments	808,262 27	
Ground rents and rentals from real estate	32,522 66	
Water Board, 1½ per cent. of gross receipts,	15,813 59	
Park Board, 5 per cent. of "Park Tax"	25,734 87	
Premium on sales of city stock	15,561 61	
City Collector, by tax levy for the sinking funds	754,356 10	
From all other sources	28,847 19	
		$1,704,533 26

The payments were as follows:

City stock, purchased for the sinking funds	$1,473,462 88	
Interest on Western Maryland Railroad loans,	148,365 00	
Enoch Pratt Free Library annuity	50,000 00	
All other demands	537 68	
		1,672,365 56
Balance to credit of sinking and special funds, December 31, 1911		$32,167 70

The City's Debt.

Amount of Funded Debt, December 31, 1911	$64,595,382 95	
Amount of Floating Debt, December 31, 1911,	208,508 33	
		$64,803,891 28

Against which the city holds the following productive assets:

Sinking funds, face value	$23,112,460 98	
Water works, stock outstanding	9,500,000 00	
Electrical conduit system, stock outstanding,	2,830,000 00	
Amounts carried forward	$35,442,460 98	$64,803,891 28

Amounts brought forward.....	$35,442,460 98	$64,803,891 28
Docks and piers, stock outstanding.....	5,215,000 00	
Turnpike stock.....	2,062 50	
		40,659,523 48
The Funded Debt, December 31, 1911, is....	$64,595,382 95	
The Funded Debt, December 31, 1910, was..	61,647,482 95	
Showing an increase during the year 1911, of....		2,947,900 00

The following stock having been issued:

Paving 4 per cent. 1951 Loan.....	$500,000 00	
General Fund Bonds ¼ per cent. 1955 Loan,	300,000 00	
Conduit 4 per cent. 1958 Loan.....	230,000 00	
Burnt District Improvement 4 per cent. 1960 Loan.....	15,000 00	
Dock Improvement 4 per cent. 1961 Loan..	200,000 00	
School House 4 per cent. 1961 Loan.....	500,000 00	
Jones' Falls Improvement 4 per cent. 1961 Loan.....	100,000 00	
New Sewerage Improvement 3½ per cent. 1980 Loan.....	1,102,900 00	
		2,947,900 00

Increase of Funded Debt, authorized, but not yet issued:

Paving 4 per cent. 1951 Loan.....	$4,500,000 00	
Annex Improvement 4 per cent. 1961 Loan..	2,500,000 00	
Burnt District Improvement 4 per cent. 1960 Loan.....	120,000 00	
General Fund Bonds ¼ per cent. 1955 Loan,	2,700,000 00	
Conduit 4 per cent. 1958 Loan.....	170,000 00	
Water 4 per cent. 1958 Loan.....	5,000,000 00	
Dock Improvement 4 per cent. 1961 Loan...	1,800,000 00	
School House 4 per cent. 1961 Loan.....	1,000,000 00	
Jones' Falls Improvement 4 per cent. 1961 Loan.....	900,000 00	
New Sewerage Improvement 4 per cent. 1961 Loan.....	10,000,000 00	
New Sewerage Improvement 3½ per cent. 1980 Loan.....	1,000,000 00	
		29,690,000 00

The face value of the sinking funds, December 31, 1911, is	$23,112,460 98	
The face value of the sinking funds, December 31, 1910, was	21,639,381 61	
Increased value in 1911 is		$1,473,079 37

The increment is thus explained:

From interest on stock and investments	$761,763 53	
Rents from real estate	32,522 66	
Water Board, 1½ per cent. of gross receipts,	15,813 59	
City Collector, by tax levy	754,356 10	
Premium on sales of stock	15,561 61	
Park Board, 5 per cent. of park tax	25,734 87	
From other sources	16,651 01	
		$1,622,403 37
From which deduct:		
Interest on Western Maryland Railroad Loans	$148,365 00	
Other payments	959 00	
		149,324 00
		$1,473,079 37

The face value of city stock purchased during the year for the sinking funds, amounted to $1,478,265.70, at a cost of $1,473,462.88.

CITY COLLECTOR.

TABLE A—Total City and State Taxes, Including the Rural, Suburban and Annex, Received from January 1, 1911, to December 31, 1911.

Month.	City and State.			Rural, Suburban and Annex.		
	City.	State.	Total.	City.	State.	Total.
January	$4,376,370 52	$550,253 53	$4,926,624 05	$126,945 08	$29,720 80	$156,665 94
February	528,473 03	48,230 88	576,703 91	31,516 29	7,304 51	38,820 80
March	533,802 72	40,009 35	573,812 07	18,852 76	4,336 57	23,189 33
April	594,554 26	39,032 11	633,586 37	15,250 52	3,718 36	18,968 88
May	445,911 95	44,530 57	490,442 52	24,916 43	5,407 27	30,323 70
June	538,691 14	48,722 98	587,414 12	35,694 79	7,642 55	43,337 34
July	643,756 57	70,625 97	714,382 54	39,864 45	9,525 46	49,389 91
August	155,370 26	52,527 16	207,897 42	8,777 67	3,222 42	12,000 09
September	137,839 61	14,206 62	152,046 23	8,491 51	2,055 92	10,547 43
October	152,722 12	14,185 92	166,908 04	8,900 50	1,968 39	10,868 89
November	123,545 58	20,882 49	144,428 07	8,135 03	1,742 54	9,877 57
December	213,974 65	18,547 80	232,522 45	9,633 67	2,260 49	11,894 16
Total	$8,445,012 41	$961,755 38	$9,406,767 79	$336,978 70	$78,905 34	$415,884 04

City, including Streets and Mortgages	$8,445,012 41	State (City Proper)	$961,755 38
Rural, Suburban and Annex	336,978 70	State, Rural, Suburban and Annex	78,905 34
Total	$8,781,991 11	Total	$1,040,660 72

City	$8,781,991 11
State	1,040,660 72
Total	$9,822,651 83

TABLE B—CITY.

RECAPITULATION OF TAXES COLLECTED FROM JANUARY 1, 1911, TO DECEMBER 31, 1911.

	Basis.	Rate.	Tax.	Discount.	Net Tax.	Interest.	Total.
1899—Personal	$500	$1 98	$9 90		$9 90	$6 95	$16 85
1900—Personal	500	1 67	8 35		8 35	5 88	14 23
1901—Personal	3,965	1 81½	71 97		71 97	44 68	116 65
1902—Personal	5,340	1 95	104 12		104 12	57 37	161 49
1903—Real	28,633	1 86¾	534 74		534 74	249 81	784 55
Personal	4,995		93 30		93 30	44 88	138 18
Securities	10,853	30	32 56		32 56	15 98	48 54
1904—Real	38,633	2 06	795 84		795 84	352 65	1,148 49
Personal	507,595		10,456 47		10,456 47	3,750 01	14,206 48
Securities	9,643	30	28 93		28 93	12 44	41 37
1905—Real	225,793	2 11½	4,775 51		4,775 51	1,628 92	6,404 43
Personal	518,957		10,975 98		10,975 98	3,348 75	14,324 73
Securities	15,143	30	45 43		45 43	16 31	61 74
1906—Real	227,188	2 00	4,543 76		4,543 76	1,275 66	5,819 42
Personal	445,642		8,912 84		8,912 84	2,707 13	11,619 97
Securities	15,143	30	45 43		45 43	13 59	59 02
1907—Real	281,371	1 97½	5,557 09		5,557 09	274 54	5,831 63
Personal	496,431		9,804 54		9,804 54	2,317 95	12,122 49
Securities	97,091	30	291 28		291 28	63 33	354 61
1908—Real	896,844	2 00	17,936 88		17,936 88	2,347 41	20,284 29
Personal	1,261,161		25,223 22		25,223 22	3,664 45	28,887 67
Securities	614,317	30	1,842 94		1,842 94	353 24	2,196 18
1909—Real	13,668,500	1 95	266,535 76		266,535 76	30,057 26	296,593 02
Personal	2,117,265		41,286 71		41,286 71	4,071 47	45,358 18
Securities	768,139	30	2,304 68		2,304 68	295 58	2,600 26

TABLE B—CITY—*Continued.*

RECAPITULATION OF TAXES COLLECTED FROM JANUARY 1, 1911, TO DECEMBER 31, 1911.

	Basis.	Rate.	Tax.	Discount.	Net Tax.	Interest.	Total.
1910—Real	25,699,506	1 99	511,459 51	.....	511,459 51	25,724 20	537,183 71
Personal	4,099,035	.....	81,570 84	.....	81,570 84	5,108 59	86,679 43
Securities	1,790,185	30	5,370 56	.....	5,370 56	356 99	5,727 55
1911—Real	273,640,280	1 98	5,418,077 65	$93,855 57	5,324,222 08	5,700 11	5,329,922 19
Personal	67,240,443	.....	1,331,360 72	20,033 95	1,311,326 77	924 15	1,312,250 92
Securities	105,130,764	30	495,392 29	11,903 40	483,488 89	95 95	483,584 84
Savings Banks	88,050,533	183¼	165,094 74	4,104 22	160,990 52	.....	160,990 52
Total	$647,910,388	.....	$8,420,544 54	$129,897 14	$8,290,647 40	$94,886 23	$8,385,533 63

Opening streets and alleys	50,298 63
Paving streets and alleys	8,912 27
Mortgages	267 88
Total	$8,445,012 41

NOTE—The discount allowed by the Mayor and City Council for the prompt payment of taxes on the levy of 1911 on Real and Personal, according to the above table was $113,889.52, which is equivalent to the taxes on a basis of $5,751,996, and this amount deducted from the gross basis of $340,880,723 leaves a net basis collected upon of $335,128,727 (see Table G).

TABLE B.

Rural, Suburban and Annex.

Recapitulation of Taxes Collected from January 1, 1911, to December 31, 1911.

	Basis.	Rate.	Tax.	Discount.	Net Tax.	Interest.	Total.
1908—Real, Annex...	$168,758 00	$0 60	$1,012 55	.....	$1,012 55	$177 77	$1,190 32
1909—Real, Rural....	1,714,308 00	65	11,143 03	.....	11,143 03	1,249 44	12,392 47
1909—Real, Suburban.	507,471 00	1 30	6,597 11	.....	6,597 11	743 47	7,340 58
1910—Real, Rural....	3,227,652 00	66⅔	21,410 09	.....	21,410 09	1,124 18	22,534 27
1910—Real, Suburban.	1,398,220 00	1 30	18,176 88	.....	18,176 88	956 30	19,133 18
1911—Real, Rural....	22,566,245 00	66	148,937 21	$2,189 63	146,747 58	225 56	146,973 14
1911—Real, Suburban.	9,922,900 00	1 30	128,907 71	1,824 52	127,173 19	241 55	127,414 74
Total.....	$39,505,554 00	.....	$336,274 58	$4,014 15	$332,260 43	$4,718 27	$336,978 70

COLLECTOR OF WATER RENTS AND LICENSES.

DANIEL J. LODEN, Collector.

The collections for water rents, meter rents, plumbing bills, etc., amounted to $1,101,123.40, which is $45,132.78 more than the collections for the year 1910.

The collections for general licenses, which embraces vehicles, telegraph and telephone poles, theatrical performances, billiard, pool and bagatelle tables, bowling alleys, etc., amounted to $88,631.38, an increase of $569.33 over the year 1910.

The collections for dog licenses amounted to $25,958.25, a decrease of $3,643.00 from the year 1910.

Collections Made for Water Department During the Year 1911 by Collector of Water Rents and Licenses.

	Dr.	Cr.
To water rents for 1911	$544,747 71	
To water rents for 1910	89,826 32	
To water rents for 1909	1,308 31	
To water rents for 1908	321 23	
To meter rents	402,163 73	
To plumbing bills	48,237 05	
To meter plumbing	3,755 70	
To interest on back water rents	1,544 93	
To turn-offs	316 00	
To vacancies	511 00	
By deposits with the City Register:		
January		$210,142 77
February		82,473 70
March		265,266 07
April		151,101 10
May		40,085 33
June		44,841 83
July		114,071 87
August		18,307 85
September		12,554 59
October		107,407 47
November		20,210 37
December		26,269 03
Totals	$1,092,731 98	$1,092,731 98

Expenditures of the Collector of Water Rents and Licenses During the Year 1911.

Appropriation made by the Mayor and City Council:

For interest on Water Loans	$415,000 00	
For salaries	30,124 35	
For Sinking Fund	16,050 00	
For expenses	2,055 00	
		$463,229 35
Amount expended for interest	$415,000 00	
Amount expended for salaries	30,124 17	
Amount expended for Sinking Fund	15,813 59	
Amount expended for expenses	1,751 94	
		462,689 70
Amount of appropriations unexpended		$539 65

Receipts from Licenses for the Year 1911 by the Collector of Water Rents and Licenses.

One-horse wagons	$20,672 50
Two-horse wagons	16,156 00
Three-horse wagons	1,195 50
Four-horse wagons	428 00
Six-horse wagons	126 00
Cabs	86 25
Hacks	483 75
Package carts	830 50
Coal oil	1,881 00
Theatrical permits and licenses	7,577 90
Telegraph and telephone poles	18,668 00
Cars	4,384 30
Scows	724 50
Billiard tables	237 50
Pool tables	8,837 50
Bagatelle tables	565 00
Bowling alleys	1,512 50
Pawnbrokers	1,700 33
O. E. A. licenses	358 85
Bacon	1,200 00
Sausage and pudding	45 00
Amount carried forward	$87,670 88

Amount brought forward	$87,670 88
Merchandise (women)	20 00
Fruit	50 00
Numbers replaced	118 00
Gasoline stoves	167 50
Cut flowers	86 25
Employment agencies	518 75
	$88,631 38
Dog licenses	25,958 25
Total	$114,589 63

DEPARTMENTAL

DEPARTMENTAL

There are many items of special concern to several of the departments to which allusion has already been made in the Mayor's message. Accompanying this message are here submitted a collection of succinct reports from nearly all of the departments. These reports summarize to a more or less degree the operations of each department. While sufficient data is here presented to give the City Council and the public definite information concerning the departments herein reported, the more detailed and amplified reports may be submitted at a later date by the departments.

COMMISSION ON CITY PLAN.

Preliminary Work for the Establishment of "Fallsway" as an Important Commercial Highway.

JOSIAS PENNINGTON, President.
SEWELL S. WATTS, Secretary.
WILLIAM H. FEHSENFELD,
CALVIN W. HENDRICK,
WILLIAM B. HURST,
GEORGE S. JACKSON,
RUXTON M. RIDGELY,
REV. JULIUS HOFMANN,
JAMES H. PRESTON,
} Commission.

EDWIN H. BROWNLEY, Special Attorney.

The Commission on City Plan was, after being appointed, organized on the third of December, 1910. At the request of the Mayor, it at once proceeded with the preliminary work necessary to carry out the establishment and construction of the highway along the bed of Jones Falls.

For the preparation of alternate plans, with report and estimates as requested by the Mayor, to be submitted to the City Council, it was found necessary to have surveys and plats prepared for the various properties which would be affected as covered by the contemplated work. The necessary surveys were made and plats prepared of the property through which Jones Falls flowed, from the docks to Mount Royal avenue, about two miles in length and two city blocks in width. This work was judiciously and economically carried out by the Topographical Survey.

On November 24 last, the Commission was notified by the city authorities that the budget for the following year would not provide any funds for its expenses, and that the Commission thereafter would act in an advisory capacity only.

At a meeting of the Commission, on September 20 last, it was duly resolved:

That the street to be constructed over the bed of Jones Falls should be known as the Fallsway.

Also that the width of the Fallsway would be the same as the falls proper, practically giving the width of seventy-five feet, extending from Pratt street to Eager street, extending the same width from Eager street to the intersection with Guilford avenue, about half way between Chase and Biddle streets; from which point to Mount Royal avenue the width of the Fallsway would be 100 feet, including for that distance the bed of Guilford avenue.

The Commission has recommended the widening of Commerce street and the extension of Hoffman street to connect with Mount Royal avenue.

Plans and various suggestions have been submitted to the Commission, receiving due and careful consideration.

At your request the Commission now has before it the consideration of certain contemplated improvements around the harbor front and in connection therewith, the preliminary work of which is in the hands of Major Shirley and the Topographical Survey.

At the commencement of its work the Commission was confronted with many questions involving the ownership of property, the rights of the city in connection with railroads and private property. Numerous suggestions were made by various associations and individuals from all parts of the city; all of which have received careful consideration, and much information in connection with these has been obtained.

With a view of safeguarding the city's interests as far as possible in connection with the establishment of the Fallsway, the Commission has always been under the impression that in addition to the duties in connection with this work it was charged with the general duties of considering and preparing as far as possible work looking to the formation of a general city plan for future development in connection with the establishment and construction of highways, public improvements or reservations, opening of streets, boulevards, etc., as might from time to time be authorized and approved by ordinance of the Mayor and City Council.

The Commission holds itself ready to take up such work, awaiting the pleasure of the Mayor and City Council.

SUPERINTENDENT OF PUBLIC BUILDINGS.

Increasing Work and Responsibilities Which Keep the Department in Active Movement Both Day and Night. Surplus for Year.

GEORGE T. AMES, Superintendent.

There are comparatively few who realize the importance of this Department, the diversity of its operations, or the burden of its responsibilities.

Some part or portion of this Department is in active service continuously. The Department, in its entirety, is never closed. Night and day, 365 days in the year, somebody is on active

duty. The unremitting effort of the Department is to preserve the comfort, convenience and safety, not only of all those engaged in the public service, but also of the public itself, whenever it comes into contact with municipal affairs.

The activities of the Department are continually increasing. Additional financial responsibilities are being persistently shifted to its shoulders. Despite these multiplying burdens, the Department is expected to be successful and progressive without being overly insistent for more money.

It requires no small degree of skill and maneuvering to insure complete satisfaction and at the same time avoid the hazard of eating up too much money. The Department, during the past year, feels that it has fulfilled all of its duties and obligations; and that, too, in the face of one or two annoying difficulties.

Must Please Many Different Persons.

It must be remembered that this Department has to cater to nearly a hundred other different departments, each one of which thinks its own needs and demands the most important. All these requirements have to be adjusted and gratified; and that, too, as quickly as possible, and in such a way as not to overrun the annual appropriation. This requires close calculation, because it is impossible to forsee the extraordinary demands which always spring up from time to time. Proper allowance also has to be made for the continually expanding natural demands, all of which are the inevitable result of the city's annual growth.

The Department has developed its system of supplies and purchases to such a point of precision that it never overruns its allowed appropriation. It has perfected its system to that degree that it would take something unusual to break up its yearly financial calculations.

The Year's Successes.

The Department prides itself upon two facts: First, that it has won the approbation of the various municipal departments which it has been called upon to serve, and secondly, after providing everything that seemed to be needed, it has closed the year with a substantial surplus.

It must not be forgotten, either, that during the year several matters of unexpected expense were saddled upon the Department, not one of which could have been forseen and calculated into the year's requisitions. And yet, by careful management, by the strictest economy, by making every dollar produce a full dollar's worth, the Department has carried all of its responsibilities to the end of the year, and has turned back to the Board of Estimates a more than creditable "unexpended balance."

What the Department Has Done.

It is difficult to understand the multiplicity of demands which the Department has to handle unless some study is made of its detail work.

Four buildings have to be carefully watched and kept in fine condition, and in those four buildings are housed nearly all of the active municipal departments, including the courts, the court clerks and the Police Department. The wear and tear in offices and quarters like these are of a kind that requires constant attention and a persistent outlay of money in order to keep everything in first rate order. The public expects the municipal buildings and the municipal rooms, together with their furnishings, to be maintained in a manner creditable to the city; and it is to this Department that the public looks to have this done. And the Department feels that the results accomplished during the past year are substantially above the general average, and that, too, together with the fact that the year was closed with a satisfactory net balance.

The attention given to the physical conditions of the buildings, plus the additions made by way of new and repaired

furnishings, have resulted in putting the municipal property in better shape than it has been for years.

Special Recommendations.

The Department feels that it has been somewhat handicapped, however, for the want of proper help of a certain kind. There are one or two additions which should be made to the list of employees, which a close examination will demonstrate to be wise and business-like. For instance:

The number of watchmen in the City Hall should be increased from four to five. There should be two watchmen in the Hall at night and three during the day, in order to give the building proper protection. It is hardly possible for one man to make frequent rounds through the building at night and at the same time keep proper watch at the Holliday street door. That door must be kept open until after midnight.

Financial Report.

City Hall.

Original Appropriation, SALARIES	$16,723 33
Expenditures	16,710 83
Credit Balance	$12 50
Original Appropriation, EXPENSES	$11,100 00
Expenditures	11,100 00

City Hall Annex.

Original Appropriation, SALARIES	$5,820 00
Expenditures	5,717 50
Credit Balance	$102 50

City Hall Annex Expenses.

Original Appropriation, EXPENSES	$8,200 00
Expenditures	8,200 00

Court House.

Original Appropriation, SALARIES	$33,840 00
Expenditures	33,807 49
Credit Balance	$32 51
Original Appropriation, EXPENSES	$27,600 00
Expenditures	26,516 15
Credit Balance	$1,083 85

Revenue.

Received from sale of old paper, junk, etc	$224 35
Paid to City Comptroller	224 35

COMMISSIONERS FOR OPENING STREETS.

Wide Range of Streets Being Made Available for Public—Plans for Future Annex Extensions.

EUGENE E. GRANNAN,
BUSHROD M. WATTS,
HENRY F. NEW,
} Commissioners.

The Commissioners for Opening Streets during the year 1911 made their final returns on twelve streets, having a total length of 16,975 feet, and at a cost of $205,905.96.

The most important of these is Thirty-third street, opened from the Hillen road to Charles Street avenue. This street opens up an enormous territory for development, and is laid out 120 feet wide; it is over 8,000 feet in length. This street will have planting places provided and will be built partly by the Park Board. It is also one of the connecting links in the great park scheme.

It is a source of satisfaction to the city that the large number of streets were opened at such a low cost. There were

few appeals taken from the hundreds of awards made, and the totals did not aggregate $500.

The streets on which final returns were made are as follows:

Opening.

Thirty-third street, Charles street to the Hillen road, cost $66,590.16.

Homestead street, from Tyler street to the Harford road, cost $13,033.60.

Homestead street, from Greenmount avenue to Tinges lane, cost $14,719.38.

Oak street (Ash avenue), from University Parkway to Mallory lane, cost $3,811.41.

Saratoga street, from Holliday to Gay streets, cost $34,928.62.

Thirty-fourth street, from Greenmount avenue to Tinges lane, cost $17,319.26.

Twenty-sixth street, from Remington to Huntingdon avenues, cost $2,335.62.

Oak street, from Twenty-sixth to Twenty-ninth streets, cost $2,591.16.

Pratt street, from East Falls avenue to President street, cost $47,504.93.

Remington avenue, from Twenty-eighth to Oak streets, cost $402.85.

Wyman avenue, from Remington to Huntingdon avenues, cost $2,308.97.

Closing.

Merrymans lane, from Cedar avenue to Fortieth street.

The Board received twenty-one preliminary plats; twenty of these were for opening streets, and one for closing.

In carrying out the work of paving streets under the old Annex Loan Act, there was one uncompleted contract left over from 1910, namely, Poplar Grove street, between Edmond-

son and Westwood avenues. This contract was let to the F. E. Schneider Paving Company on June 1, 1910, to pave the street with sheet asphalt with granite blocks in the car tracks. Later, this contract was extended to include the block between Westwood and North avenues.

Poplar Grove street is now opened to traffic through from Edmondson avenue to North avenue, the contractors having taken the responsibility for repairs to the concrete base left exposed in one block.

In the paving of this street, it was necessary to erect a steel concrete bridge over the right-of-way of the Western Maryland Railroad Company. The contract for this structure was awarded to the Raymond Concrete Pile Company which was completed at a cost of $33,619.55. The clear span is 83 feet 4¾ inches.

The Board awarded two small contracts this year, which practically extinguished the small balance left from the loan. Contract No. 89 was awarded to the David M. Andrew Contracting Company for paving Keyworth avenue from the Reisterstown road to Park Heights avenue and the adjoining 15-foot alley, with tarred macadam paving. The fact that the street is not completed at the present time is due to the lateness of the season when work was started, and to the fact that both sanitary and storm-water drains had to be constructed by the Sewerage Commission before our contractors could get possession of the street.

Contract No. 90 was awarded to the Consolidated Engineering Company for the paving of Cokesbury avenue with vitrified brick, from Adams street to a point about 300 feet northwardly, to connect with the brick pavement already laid by the City Engineer's Department in a previous year. This work was started in October, 1911, and completed on November 22, 1911.

The total mileage of streets paved out of the Annex Loan is 26.79 miles, based on a 40-foot street, between curbs.

Poplar Grove Street.

Poplar Grove street was opened between Edmondson avenue and Westwood avenue, the cost of acquiring the title to the street bed, seventy feet wide, being $17,301.27. Owing to the urgent demand for the improvement of this thoroughfare, the Commissioners with the approval of the Board of Estimates, advanced the funds for the payment of the damages, and placed the contract for paving the street one year ahead of the usual time required for proceedings of this character.

The opening of this street supplies a travelway from Edmondson avenue to North avenue, and is the only avenue of travel between these points west of Fulton avenue, and is half way between the last named street and the western city limits, over two miles distant. It furnishes communication between the southwestern, western and northwestern sections of the city, and as an improved street, gives a smooth driveway connection from the extreme southwestern to the extreme northwestern points. Prior to the opening of this street, there was no opened and paved street between Edmondson and North avenues, west of Fulton avenue to the city line, and besides being a useful opening, the paving of the street places thousands of dollars worth of property upon a higher rate of taxation.

In connection with the paving of Poplar Grove street, it was necessary to construct a bridge over the Western Maryland Tidewater Railroad. This bridge has a clear span of 80 feet 4¾ inches. It is built of steel encased in concrete, thus obviating the necessity of frequent painting of the iron work and the relaying of wooden decks. The whole cost of paving including extra work on portions of side streets, etc., was $80,801.70. The bridge was erected at a total cost of $33,857.19.

COMMISSIONER OF STREET CLEANING.

Developing the Department to a Higher Degree of General Efficiency—Several Important and Practical Suggestions—Excellent Service by the Southern Product Company.

WILLIAM A. LARKINS, Commissioner.

The total appropriation for the year was $883,676; total expenditures were $830,385.02. The money received from the sale of street dirt and other miscellaneous refuse during the year amounted to $2,978.98.

The Department is devoting particular attention to the separation of garbage from ashes and refuse to the total exclusion of the former from the city and suburban ash dumps, thus putting an end to depositing kitchen and household refuse on the low grounds on dumps intended for building purposes. In this connection, I have had considerable assistance from Dr. Bosley, the Commissioner of Health.

The Department has had considerable trouble in making collections of garbage and refuse from the households in the sections where the contractors of the Sewerage Commission are doing their work; the alleys being torn up and impassable for weeks at a time. The garbage inspectors visit the householders and request that the refuse be placed in an accessible place for the collector, and, in this way, we are able to make collections for the time being.

The ordinance requiring householders to separate garbage from ashes and refuse is being rigidly enforced as being the most necessary requisite for the sanitary disposition of perishable waste. The Southern Product Company, having the contract for the reduction of garbage at the plant situated at Bodkin Creek, are complying with the terms of their contract in the most satisfactory manner and, from a sanitary standpoint, it is one of the most complete and up-to-date reduction plants of its kind in the country today.

Carelessness of Storekeepers.

The Department has been seriously handicapped by the gross carelessness of storekeepers and their employees who sweep paper and other waste into the streets and alleys in direct violation of the law. This practice is also prevalent in the various market-houses; however, the Department is endeavoring to put a stop to this practice and is receiving the necessary assistance from the marshal of police.

Paper and Fruit Parings.

As a means of keeping the streets clear of paper and fruit parings cast by the public, the Department has had placed one hundred additional cans on the street corners for persons to drop this rubbish into, and the Department has had the hearty co-operation of the Women's Civic League in this matter as well as other matters of a sanitary viewpoint affecting the health and cleanliness of the city.

No Dust on Macadam Roads.

During the year, all the macadam roads around the city were oiled with an emulsion for laying dust furnished by the Headley Good Roads Company under contract at 9½ cents in tank cars delivered at the yards of Patrick Flanigan & Sons, on Kate avenue, thus effecting a great saving to the city by avoiding the shipment of this oil in barrels or iron drums. The contract was advertised for and awarded to Messrs. Flanigan & Sons for the unloading of these tank cars and the distributing of this emulsion in iron drums wherever needed on wagons especially constructed for that purpose and applied in two sprinkling wagons designed by the contractor for that particular purpose. The contract was carried out in the most efficient manner by the contractor, with the result that the office has received very few complaints from the public about

dust on these roads. The total amount expended for this work amounted to $8,211.83, showing a cost of 2⅓ cents per square yard for 351,896 square yards treated.

The Problem of Dumps.

The question of dumps for street dirt and refuse has long been a source of much annoyance to the Department. For the past ten years, this has been mentioned in the Department reports, thus showing the necessity for making some provision for this refuse. The dumps are getting farther away each year. The great amount of building going on in the city is causing the excavations from these sites to be given the preference on the dumps to our refuse.

The Department has a contract with the Arundel Sand and Gravel Company to scow away the refuse from the commercial part of the city, at 31 cents per cubic yard. Scows are located at Back Basin, and the total expenditure for the scowing away of this refuse amounted to $22,288.69 for 71,899 cubic yards, which were deposited at the old quarantine grounds to fill in the low lands. I would, therefore, recommend a contract with the trolley or railroad companies to haul away in cars at night this refuse, which should be hauled to dumping stations or platforms in four different sections of the city, where the same could be handled without complaint from the citizens. This, along with the contract for scowing the refuse away from the central part of the city, seems to be the solution of the dump question. The increase in the appropriation for additional carts could and must be avoided by means of this kind.

Block System of Work.

The abnormal growth of Baltimore has placed her in the front rank of the country's principal cities, and, in her methods and economics, she should preserve pace with her sister munici-

palities. Therefore, the blocking system among the hand-broom sweepers, in lieu of gang or section service, has been introduced upon our improved streets, and in the commercial part of the city, by the traffic block system, where the hand carts have been used with most satisfactory results. I would advocate the extension of the blocking method to the inclusion of all of Baltimore's improved streets, as soon as the same are completed by the Paving Commission. At the present time, the Department has eighty-eight men with hand carts working on improved pavements and in the commercial part of the city under the block system. This system, with the washing machines as an adjunct, will place our city in the front rank of our cleanest cities.

The Sanitary Division, which has charge of the collection of garbage and refuse, as well as the collection of scavenger work, is doing efficient service. The number of complaints received this year was slightly in excess of the previous year, due to the impassable condition of alleys, occasioned by the improved sewers.

Repairs to carts and wagons are made in our own shops (Pratt street and Central avenue). The Department, through Mr. Clarence E. Stubbs, Inspector of Buildings, has had erected during the month of December a shed at Pratt street and Central avenue for the housing of twenty-four carts, and has, under the same department, begun the erection of two new stables—one on Greenmount avenue, south of North avenue, and one on the east side of Ridgely street, south of West street—which he expects the contractor will complete in the early spring.

The carts of this Division have been provided with shovels so as to gather up any garbage or litter that may be scattered on their routes. This has shown a marked improvement in the routes traversed by the Sanitary Division.

PUBLIC BATH COMMISSION.

Growth in Public Use of the Baths Is Proving the Great Practical Value of the Department's Operations.

EUGENE LEVERING, Chairman.
W. H. MORRISS, Vice Chairman and Treasurer.
MARY SHERWOOD, M. D.,
JOSEPH E. GICHNER, M. D., } **Commissioners.**
WM. A. EISENBRANDT,
OREGON MILTON DENNIS,
H. ROSS COPPAGE, D. D. S.,

THOS. M. BEADENKOFF, Superintendent and Secretary.

During the year 1911 fourteen bathing stations and one public comfort station have been under the charge of the Public Bath Commission. At the bathing stations 891,315 patrons were recorded, about 150,000 more than in the previous year; 401,003 persons used the Public Comfort Station at Market Place and Lombard street.

This total of 1,292,318 patrons indicates the large use of the public cleansing, recreative and sanitary conveniences which are under the care of the Public Bath Commission. Two new bathing stations have been opened during the past year.

The one at West and Marshall streets, erected by Mr. Henry Walters, has had since opening, on April 15, 67,500 bathers.

The second new bathhouse is at West Park Recreation Centre, Hampden, where public baths are maintained; 25,000 patrons have used them since June 17.

The large swimming pool at Patterson Park shows an attendance of 171,270, an increase of 50,000 over 1910, with the record also of 600 boys and girls taught the useful art of swimming.

Notwithstanding the large patronage at all the bathing stations, no fatalities or serious accidents have occurred.

Attendance Record of 1911.

	Patrons.
Walters Baths No. 1	263,700
Walters Baths No. 2	111,388
Walters Baths No. 3	33,820
Walters Baths No. 4	167,522
Patterson Park	171,271
Hampden Baths	24,783
Portable Baths	73,548
Harbor Swimming Baths	145,283
Total	891,315
Receipts from fees, refunded to city	$17,012 56

SUPERINTENDENT OF LAMPS AND LIGHTING.

Persistent Work Which Has Produced for the City Better Service at a Reduced Cost—Plans for Placement of Ornamental Lights.

ROBERT J. McCUEN, Superintendent.

There are in service at the present time 11,686 street lamps of all classes, of which number 8,054 are mantle gas lamps, 404 mantle naphtha lamps, 2,605 electric arc lamps and 623 electric incandescent lamps.

These lamps, as has been the custom in the past, are operated and maintained by several contractors, viz.: The gas and naphtha lamps by the American Street Lighting Company, at the rate of $10 and $24 per lamp per annum, respectively; the electric arc and incandescent lamps by the Consolidated Gas Electric Light and Power Company, at the rate of $74 each per annum for arc lamps located in the underground districts; $60 each per annum for arc lamps located in the

overhead districts, and $20 each per annum for incandescent (40 candlepower) electric lamps, the latter lamps being confined exclusively to streets and alleys located in the overhead districts where there are no gas mains.

The supply of gas for the street gas lamps is furnished by the Gas and Electric Company, at the rate of 70 cents per 1,000 cubic feet. All service connections to new gas lamps are made by the Gas and Electric Company at actual cost, averaging approximately $7 per lamp.

Ownership of Lighting Properties.

The city owns the gas lamp posts and lanterns with the exception of a number of boulevard type of lanterns and all patent lamp burners which are the property of the American Street Lighting Company. The lanterns can be purchased by the city at actual cost, whenever desired.

The naphtha lamp posts and equipment, which are used for lighting streets and alleys where there are no gas mains, are the property of the American Street Lighting Company, but whenever the gas mains are extended to such streets and alleys these lamps are supplanted by gas lamps, which, of course, are the property of the city, and which are more serviceable and less expensive than the naphtha lamps.

The entire equipment used for the electric arc and incandescent street lighting is furnished, installed and owned by the Consolidated Gas Electric Light and Power Company.

All ornamental lamps and equipment of a special character, such as those now located on the City Hall Plaza and those in the course of construction in the vicinity of the City Hall and for the several boulevards located in North Baltimore, are the property of the city. These lamps are to be operated under special contracts and at prices expected to be very moderate and attractive.

Contracts.

The following contracts for the maintenance of the street lighting service and for other work and supplies were awarded by the Board of Awards during the year as follows:

To the Gas Electric Light and Power Company:

Arc lamps in overhead districts, per lamp per annum	$60 00
Arc lamps in underground districts, per lamp per annum	74 00
Arc lamps (half-night) overhead districts, per lamp per annum.	54 00
Arc lamps (half-night) underground districts, per lamp per annum	64 00
Incandescent lamps (40 c. p.) overhead districts, per lamp per annum	20 00
Incandescent lamps (40 c. p.) underground districts, per lamp per annum	36 00
Electric current to City Hall and Courthouse, per kilowatt-hour,	03
Electric current to all municipal buildings (except those coming under the jurisdiction of Park Commissioners), per kilowatt-hour, according to quantity consumed.....4c., 5c. and	06
Supply of gas to city street lamps, per lamp per annum.....	7 00
(Or at the rate of 70c. per 1,000 cubic feet.)	

Saving as Compared With Former Cost.

A comparison of these prices with prices for the same service under former contracts shows that the city will effect an additional saving of approximately $10,000 a year for street lighting.

Ornamental Street Lighting.

Your Honor's action in directing the Municipal Art Commission some months ago to select artistic lamp standards for use on the streets in the business section and for boulevards in North Baltimore is a substantial evidence that Baltimore is about to lay a foundation for a general scheme of ornamental street lighting, which action will receive the hearty approbation of those of our citizens who are hoping for a realization of the much-talked-of "City Beautiful."

Therefore, the first step in the direction of the proposed general scheme of street lighting was taken when lamps of this character were placed on the City Hall Plaza.

City Hall Plaza.

Twelve lamp standards of an ornate design were installed on the City Hall Plaza, on each of which standards is attached a cluster of five Alba globe lamps, four of which are inverted and in a reversed position, and one large globe on each post being in an upright position.

Six of these lamps are situated on the north and six on the south side of the Plaza, with a spacing of fifty feet. These lamps are supplied with current from the service connection from which the City Hall and Courthouse is also supplied, thus enabling the city to obtain the benefit of the minimum price of current for these lamps, and with the use of an automatic time switch, which is part of this installation, four of the lamps on each post are extinguished at midnight, while the large upright lamp on each standard remains burning all night, so that by this combined arrangement the cost is considerable less for the maintenance of these lamps which produce a greater volume and a much more uniform diffusion of light than for that of the old type of lamps formerly in service on that thoroughfare.

A further reduction in the cost of the maintenance of these lamps will become effective when the current from the High Pressure Pumping Station is available, which will be within the next two months.

The practicability and efficiency of this system of street lighting, not only from the standpoint of ornamentation, but also from that of economy, suggested the extension of it, with the result that additional lamps and fixtures of a similar character are now being installed, by the working force of this Department, on each of the streets surrounding the City Hall, and these lamps will be ready for service within the next

two or three weeks, should the weather permit the continuance of the work of construction.

These lamps will also be attached to the City Hall service connection and will be operated under the same conditions as those on the Plaza.

Ornamental Lamps for Sydenham Hospital.

In addition to the work above outlined, this Department is constructing an ornamental system of lighting for the Health Department, on the driveway from Eastern avenue to Sydenham Hospital. This installation will consist of eight boulevard type single-light standards, spaced 162 feet apart and alternately staggered. Each post will have mounted thereon one 250-watt tungsten lamp enclosed in an 18-inch Alba globe.

All supply wires for this lighting will be underground, and provision has been made for carrying the telephone circuits leading from the telephone company's trunk line to the Hospital in the same subway. By this arrangement all overhead wires leading from the entrance and along the driveway will be removed.

In this connection it may be of interest to state that a special appropriation, which was favored by your Honor, will enable the city to proceed with the construction of a number of ornamental lamps on Charles street, from Twenty-ninth street to University Parkway, and on University Parkway, from Charles street to Stony Run Bridge.

Plans are now being mapped out for this work, and the completion of this installation may be expected about the beginning of next June, when it will be ready for service.

Extension of the Service on Existing Streets.

Since assuming charge of the Department, the saving effected as the result of economies practiced by the Department and the reduction from time to time in the cost of the service,

have enabled me to place additional lamps on some of our thoroughfares, thus improving the street lighting service on many of these residence streets, with quite a large number in all sections of the city yet in need of additional lamps.

In this connection it is most gratifying to note that your Honor is thoroughly impressed with the necessity of an extension of this improvement on existing streets, in that you have sanctioned and approved a special appropriation for this purpose, and as a result every street embraced in the twenty-five miles of streets selected by the Paving Commission for improved paving will also be properly and sufficiently lighted by the installation of a large number of additional lamps of all classes during the year 1912.

This special appropriation will therefore be applied exclusively for the erection and maintenance of additional lamps on the following named streets:

Harford avenue, from Forrest street to North avenue.
Aisquith street, from Orleans street to Ashland avenue.
Aisquith street, from Harford avenue to North avenue.
Ensor street, from Gay street to Harford avenue.
Constitution street, from Madison street to Front street.
Front street, from Gay street to Forrest street.
High street, from Front street to Lexington street.
High street, from Fayette street to Baltimore street.
Chester street, from Chase street to Monument street.
Chester street, from McElderry street to Orleans street.
Camden street, from Hanover street to Charles street.
Barre street, from grade crossing west of Sharp street to Charles street.
Jefferson street, from Wolfe street to Patterson Park avenue.
Jefferson street, from Broadway to Aisquith street.
Hoffman street, from Greenmount avenue to Eden street.
Hoffman street, from Caroline street to Bond street.
Bond street, from Hoffman street to Madison street.
Pine street, from Saratoga street to German street.
Penn street, from German street to Pratt street.
Eager street, from Jones Falls to Chester street.
Biddle street, from Jones Falls to Broadway.
Madison street, from Greenmount avenue to Patterson Park avenue.
Bond street, from Hoffman street to North avenue.

Caroline street, from Chase street to Hoffman street.
Caroline street, from Oliver street to North avenue.
Eden street, from Madison street to Lanvale street.
Central avenue, from Lancaster street to Harford avenue.
Ensor street, from Chase street to Lamont avenue.
Preston street, from Valley street to Gay street.
Lanvale street, from Ensor street to Broadway.
Lafayette avenue, from Aisquith street to Broadway.
Oliver street, from Ensor street to Lamont avenue.
Aisquith street, from Baltimore street to Lexington street.
Exeter street, from Front street to Lombard street.
President street, from Pratt street to Lancaster street.
Eastern avenue, from East Falls avenue to Broadway.
Aliceanna street, from East Falls avenue to Caroline street.
Chase street, from Broadway to Patterson Park avenue.
Fayette street, from Broadway to Luzerne avenue.
Fayette street, from Poppleton street to Eutaw street.
Hill street, from Howard street to Charles street.
Patterson Park avenue, from Baltimore street to Chase street.
Linden avenue, from Biddle street to North avenue.
John street, from Dolphin street to North avenue.
Park avenue, from Biddle street to McMechen street.
Park avenue, from Laurens street to North avenue.
Richmond street, from Howard street to Cathedral street.

Plan of Night Inspection of the Service.

Every conceivable method is made use of by the Department for the purpose of making it possible to maintain a uniform standard of street lighting during the hours of burning every night in the year, and with that object in view the following plan of inspection has been established.

The city is divided into eight districts and the street lamps of all kinds embraced in each of these districts are in charge of a district superintendent, whose duty it is to keep a strict supervision over the lamps and to see that the standard of light required by the contract is maintained during the hours of burning, and to report any neglect on the part of the contractor or his employees which may result in a defective service.

These districts are sub-divided into four sections of approximately one square mile each, and the district superintendents

are required to patrol each section nightly in rotation, except when previous inspections in any one of the sections show the condition of the lamps to be below what is deemed the standard efficiency of the service, in which event, the district superintendent is required to patrol the particular section continually until the defective service is improved.

As a result of this system, there have been made during the year 321 nightly inspections by each of the eight district superintendents, comprising approximately eight square miles of territory each night by the entire force, or a total of 2,568 square miles during the year. This means that the entire city is covered by the eight district superintendents eighty and one-quarter times during each year.

Daylight Inspection.

At intervals of every three months during the year, each district superintendent is required to inspect the street lamps, street signs and all other lamp equipment in his district in the day time, which requires a period of about two weeks at each of such inspections.

The purpose of this inspection is to discover any defects that may exist in or about the street lamps, signs and fixtures which are not readily discernible at night, whereby the Department is enabled to keep in touch at all times with the conditions of the lamp equipment, and to make repairs and alterations when found necessary as promptly as possible.

Repair of Street Lamps, Fixtures, Signs, Etc.

As a result of our usual daylight inspections, more than 2,000 orders were issued and executed during the year for repair work of a varied character.

Collecting and Testing Coal Oil.

The law requires that coal oil sold by retail dealers in quantities less than a barrel, shall be inspected and tested by

the city, in order to determine whether or not the legal standard of efficiency is maintained, the object of this law being for the protection of those who may use this commodity for light and cooking purposes.

To carry out the provision of this law, each of the eight district superintendents are required to collect from retail merchants and from delivery wagons of the several oil companies, three samples of coal oil each day, except Sunday, and these samples are brought to the laboratory of the Department for inspection.

A total of 6,240 samples of oil were thus collected and tested at the rate of 24 samples each per day during the year, and in no case was the oil found to be below the legal standard flashing point, namely, 120 degrees Fahrenheit.

Financial Statement.

Appropriation for Lighting the City.

Appropriation for the year 1911	$371,644 29
Appropriation, Ordinance No. 567, illumination Order Moose	2,000 00
Appropriation, Ordinance No. 559, illumination Order Odd Fellows	450 00
Total	$374,094 29

Expenditures for Lighting the City.

Salaries	$15,282 33	
Gas lighting and maintenance	154,790 96	
Naphtha lighting and maintenance	12,097 28	
Electric lighting and maintenance	188,647 53	
Incidentals	346 73	
Special illumination, Order Moose	1,965 00	
Special illumination, Order Odd Fellows	450 00	
		373,579 83
Balance unexpended, December 31, 1911		$514 46

Receipts During the Year.

Sale of old material	$1,531 24
General revenue	175 32
Total receipts during the year, to December 31, 1911	$1,706 56

CITY ENGINEER.

Details of Work Performed and Planned, Covering Streets, Bridges, Sewers and Other Lines of Physical Construction.

H. KENT McCAY, City Engineer.

Improved Pavement and Bridge Division.

	Miles.	Sq. Yds.
Sheet asphalt pavement	1.51	34,322
Vitrified block pavement	1.53	29,480
Granite block pavement	.41	9,242
Asphalt block pavement	.37	5,947
Concrete wearing surface	.08	496
Cobble repaved	.43	10,394
Totals	4.33	89,881

Other new construction was the Franklin Road Bridge over Gwynns Falls, 110.75 feet long and 27.1 feet in width, and two concrete retaining walls, one 61.42 feet long on Falls road south of Cedar Avenue Bridge, and one 45.15 feet long in rear of Enoch Pratt Free Library Branch at Gorsuch avenue and Taylor street.

All existing bridges received minor repairs and the iron and steel parts were painted where necessary.

Division of Street Repairs.

Sheet asphalt repairs, square yards	26,446
Cobble repaving, square yards	212,521
Gutter stones relaid, lineal feet	45,041
Curb reset, lineal feet	79,215
Flag stones reset, square yards	5,328
Asphalt block repaved, square yards	28,563
Vitrified blocks repaved, square yards	6,499
Belgian blocks repaved, square yards	93,303
Macadam pavements resurfaced, square yards	42,870
Concrete sidewalks laid, square yards	257
Concrete curb constructed, lineal feet	1,372
Wood blocks repaved, square yards	1,596
Cobble stones paved, square yards	748
New macadam pavement laid, square yards	10,579
Bituminous macadam laid, square yards	6,562
Bituminous macadam flushed, square yards	3,552
New flag stones laid, square yards	154
New gutter laid, lineal feet	3,129
Slag block relaid, square yards	163
Brick footway laid, square yards	18
Concrete gutter laid, lineal feet	2,683

Sewer Division.

New Sewers.

Sewer in Twentieth street, from Homewood avenue to Greenmount avenue, and thence in Greenmount avenue to Twenty-first street. Terra-cotta pipes, 27 inches and 30 inches in diameter; length, 1,066 feet.

Lateral sewer in Lanvale street, from the main sewer in Calhoun street to Carrollton avenue. Terra-cotta pipes, 12, 15 and 18 inches in diameter; length, 817 feet.

Lateral sewer in Edmondson avenue, from the main sewer in Pulaski street to Monroe street. Terra-cotta pipes, 12, 15 and 18 inches in diameter; length, 984 feet.

Extension of sewer in Lafayette avenue, from Montford avenue to the east side of Milton avenue. Terra-cotta pipes, 20 inches in diameter; length, 437 feet.

Extension of sewer in Barre street, from Light street to Charles street. Terra-cotta pipes, 15 and 18 inches in diameter; length, 476 feet.

Lateral sewer in Eutaw street, from Fremont avenue to Hamburg street. Terra-cotta pipes, 20 inches in diameter; length, 372 feet.

Lateral sewer in Hamburg street, from Eutaw street to China alley. Terra-cotta pipes, 12 inches in diameter; length, 166 feet.

Lateral sewer in Hamburg street, from Howard street to Sharp street. Terra-cotta pipes, 12 inches in diameter; length, 276 feet.

Sewer on west side of Falls road, from the north side and at the center of the culvert under the Clifton Mill road to the west side of the culvert under the Falls road, north of the Clipper Mill road. (Done by contract.) Terra-cotta pipes, 36 inches in diameter; length, 431 feet.

Total length of sewers laid during the year, 4,935 feet.

New inlets constructed	58
Inlet and minor sewer repairs	666
Inlets equipped with manholes	86
Inlets equipped with safety bars	48

Old sewers were repaired and put in good condition by replacing wooden floors with granite block pavements, and by a general pointing up of joints with cement, as follows:

McMechen Street Sewer—Between Eutaw Place and Morris alley and between John street and Park avenue.

Schroeder Run Sewer—Between Lexington street and Arlington avenue.

Chatsworth Run Sewer—In Myrtle avenue, between Franklin and George streets.

Reconstruction of sewer in Howard street, at Hamburg. Reinforced concrete; length, 297½ feet.

PAVING COMMISSION.

Plans Completed for Well-Developed Scheme of Improved Highways—Mayor's Policy of Financing Is Approved.

R. KEITH COMPTON, Chairman.
JAMES H. PRESTON, Mayor, ex-officio.
DOUGLAS H. THOMAS,
ALFRED E. BOOTH,
LEONIDAS G. TURNER,
SAMUEL C. ROWLAND,
Commission.

On May 31, 1911, the Paving Commission met for organization; regular meetings were held from that date until July 5, when it adjourned until the third Wednesday in September. During the intermission, in accordance with a resolution passed by the Commission on July 5, the Chairman and a small engineering and clerical force were engaged upon a plan showing the improved streets and alleys existing at the time this Commission was inducted into office; the materials with which they were paved, the mileage of the same, and whether originally paved by assessment, or out of the general tax levy; the area of the intersections of all streets and alleys; the aggregate and detailed depths of all corner lots, and a complete estimate of the cost of paving all the streets and alleys in the city with appropriate materials, together with all other information pertinent thereto. It was understood that neither the Annex nor the unpaved streets and alleys within the old boundary lines of the city were to be included in this estimate.

Before the estimate above referred to was closed, the Chairman was instructed by His Honor the Mayor, and the Commission, to visit the principal cities of the United States and study the paving situation generally, so as to enable the Commission to proceed along modern, intelligent and economical lines. This order was complied with, and the Chairman submitted his report to the Commission at its regular meeting, held on September 20, embodying the results of this inspection, together with all data and a complete estimate of pav-

ing all the streets and alleys. This estimate is based on using belgian blocks for heavy, vitrified blocks for medium, and sheet asphalt or bituminous concrete on light traffic streets. Vitrified blocks are proposed for all streets under thirty feet between building lines, and also for alleys.

Estimates as to Cost.

Including all the paving in the railway area, the estimate amounts to approximately $10,700,000. It was further understood that the repaving or improvements of the old style improved streets should not be included in this estimate, but more properly should come out of the repair fund.

On September 27, the Commission authorized the improvement of the streets adjacent and leading up to the Fifth Regiment Armory, about one mile in length, so as to make the Armory more accessible to the public. Contracts were awarded on November 11, 1911, and work was commenced immediately upon the signing of the contracts.

To January 1, 1912, Bolton street had been completed (excepting two intersections). Hoffman street, from Linden avenue to Park avenue, and Dolphin street, from Mount Royal avenue to Brevard street, had also been completed. The whole work is now finished.

To January 1, 1912, the Paving Commission has selected sixteen miles of streets for improvement, and surveys are now being made; these, with one mile which is under construction, make a total of seventeen miles decided upon to date; eight additional miles have been referred to the Sewerage Commission regarding the sewer construction. Having approximately $1,500,000 available for 1912, the Commission hopes to improve at least twenty-five miles of streets. In selecting streets for improvement, the Commission has adhered to a general scheme as far as practicable, and as closely as the progress and the location of the completed sewers would permit.

Necessarily, most of the improvements during 1912 will be in the territory east of Jones Falls and north of Fayette street, for the above reasons.

All precautions are being taken to prevent the future tearing up of our streets, by inserting advertisements in the daily papers, and serving written or printed notices on city departments, public service corporations, and the individual property owners.

Street Tax Plans.

The Paving Commission has passed a resolution endorsing His Honor's street tax plan, and suggesting a per front foot rate of fifteen cents for streets having a width of not less than thirty feet so paved; a ten-cent rate for streets and alleys having a width of less than thirty feet and not less than fifteen feet so paved, and a five-cent rate for streets and alleys having a width of less than fifteen feet so paved; said rate to run for a period of ten years. An Act providing this special paving tax was passed by the recent session of the Legislature.

This Commission has prepared standard specifications for all classes of pavements, which can be used by the City Engineer and the Annex Commission, should they so desire, and in this way considerable money can be saved, and a contractor bidding for any department can see at a glance that all the specifications are the same and standard.

Streets to Be Paved in 1912.

The following is a list of streets which the Paving Commission has definitely decided to improve during the year 1912. There are other streets which may be selected from time to time during the year after the Sewerage Commission has completed its work therein:

Harford avenue, from Forrest street to North avenue.
Aisquith street, from Orleans street to Ashland avenue.
Aisquith street, from Harford avenue to North avenue.
Ensor street, from Gay street to Harford avenue.
Constitution street, from Madison street to Front street.

Front street, from Gay street to Forrest street.
High street, from Front street to Lexington street.
High street, from Fayette street to Baltimore street.
Chester street, from Chase street to Monument street.
Chester street, from McElderry street to Orleans street.
Camden street, from Hanover street to Charles street.
Conway street, from Howard street to Light street.
Barre street, from grade crossing west of Sharp to Charles streets.
Jefferson street, from Wolfe street to Patterson Park avenue.
Jefferson street, from Broadway to Aisquith street.
Hoffman street, from Greenmount avenue to Eden street.
Hoffman street, from Caroline street to Bond street.
Bond street, from Hoffman street to Madison street.
Pine street, from Saratoga street to German street.
Penn street, from German street to Pratt street.
Eager street, from Jones' Falls to Homewood avenue.
Eager street, from Ensor street to Chester street.
Biddle street, from Jones' Falls to Broadway.
Madison street, from Greenmount avenue to Patterson Park avenue.
McElderry street, east side of Northeast Market to Milton avenue.
Montford avenue, from McElderry street to Baltimore street.
Milton avenue, from McElderry street to Baltimore street.
Collington avenue, from Orleans street to Ashland avenue.
Valley street, from Hoffman street to Chase street.
Sharp street, from Camden street to Hill street.
Lombard street, from Greene street to Fremont avenue.
Lombard street, from Greene street to Paca street.
Bond street, from Hoffman street to North avenue.
Caroline street, from Chase street to Hoffman street.
Caroline street, from Oliver street to North avenue.
Eden street, from Madison street to Lanvale street.
Central avenue, from Lancaster street to Harford avenue.
Ensor street, from Chase street to Lamont avenue.
Preston street, from Valley street to Gay street.
Lanvale street, from Ensor street to Broadway.
Lafayette avenue, from Aisquith street to Broadway.
Oliver street, from Lamont avenue to Ensor street.
Oliver street, from Mount Royal avenue to alley west of Maryland avenue.
Greene street, from Baltimore street to Lombard street.
Chester street, from Baltimore street to Lombard street.
Lombard street, from Chester street to Patterson Park avenue.
Hollins street, from Fremont avenue to west about 350 feet.

HEALTH DEPARTMENT.

Fluctuations in Death Rate and the Explanation Given for the Variations—Watching the Milk Supply—Good Effect of School Inspections—Police Should Force Cleaning of Private Alleys.

DR. JAMES BOSLEY, Commissioner.
DR. C. HAMPSON JONES, Assistant Commissioner.

When the annual report for the year 1910 was submitted, it was explained that in determining the death rate, that inasmuch as we had not at that time received the final figures from the Census Bureau so that we could give the death rate for both the white and colored population, we continued the use of the old basis of estimated population, which was 589,000 for that year. On this basis we calculated the death rate to be 17.41 per 1,000 of population, which did not include strangers who died at hospitals. In October, 1911, we received the official figures, which are as follows:

Total population	558,485
White population	473,390
Negro population	84,749
Chinese population	312
Japanese population	11
Indian population	23

These are the figures of the United States Census, taken April 15, 1910.

In order to help to establish a basis for comparison of annual death rates of cities, the rule has been made that we should estimate the population to July 1 of each year. This is done by subtracting the census figures of 1900 from those of 1910 and dividing the result by 118½, which is the number of months elapsed between June 1, 1900, and April 15, 1910, which were the dates of the two censuses.

	Whole Population.	White Population.	Colored Population.
April 15, 1910	558,485	477,390	84,749
June 1, 1900	508,957	429,218	79,258
	49,528	44,172	5,491

Each of these results divided by 118½ give: Whole population, 417.87; white population, 372.76; colored population, 46.34 as the average increase for each month during the intercensal period for the whole population, white population and colored population. (In order to avoid fractions, we use the whole numbers, 418, 373, and 46.) In order, therefore, to estimate the mid-year population (July 1, 1910), we add 2½ times the average monthly increase to the census figures of April 15, 1910. This gives the estimated mid-year population for the year 1910: Whole population, 559,530; white population, 474,323; colored population, 84,864. (The Chinese, Japanese and Indians are too small in number to require separate calculation of death rates.)

Now, in order to compare the total death rates for each year, from 1900 to 1910 inclusive, we must subtract the annual average increase from the estimated mid-year population of 1910 to obtain the estimated population for 1909, and repeat the same for each year until 1900 is reached; we then multiply the total number of deaths each year by 1,000 and divide by the estimated mid-year population for each year.

Year.	Estimated Population, July 1.	Total Number of Deaths.	Death Rates.
1909	509,375	10,700	21.00
1901	514,385	10,479	20.37
1902	519,401	10,253	19.74
1903	524,417	10,141	19.34
1904	529,433	10,818	20.43
1905	534,449	10,695	20.01
1906	539,465	10,753	19.93
1907	544,481	11,190	20.55
1908	549,497	10,435	18.99
1909	554,513	10,376	18.71
1910	559,529	10,753	19.22

The above table shows a comparison of the death rates from 1900 to 1910 inclusive, based upon the corrected estimation of mid-year population for each year. The past year (1911) shows the smallest death rate of all, i. e., 18.42 per 1,000 of

population. The estimated mid-year population was 564,546, and the total number of all deaths 10,404. This number of deaths comprised 7,758 white people, and 2,645 colored people, giving death rates 16.20 and 30.85, respectively. (Estimated white population, 478,795, and colored population, 85,750.)

If, in 1911, the same death rate had prevailed as in 1900, there would have died 11,855 people instead of 10,404, showing a saving of 1,451 lives for the year. In 1911 there were 349 deaths less than in 1910, which was in part due to the lessening in the number of deaths due to typhoid fever.

Typhoid Fever.

In 1910 there were 235 deaths, in 1911 there were 154 deaths, or 81 deaths less. The average number of deaths for 1900 to 1910 inclusive, was $190\frac{9}{11}$, and the average number of deaths for the last five of those years was $192\frac{4}{11}$, while for the first six years the annual average was 189. This shows a slight increase in the average number of deaths, but inasmuch as the death rate and case rate do not maintain a fixed ratio, it is better to consider the total number of typhoid cases reported each year in order to obtain an idea of the typhoid situation. During the first six years, 1900 to 1905 inclusive, there were reported 5,452 cases or $908\frac{4}{6}$ cases annual average. From 1906 to 1910 inclusive, there were reported 7,018 cases, or an annual average of $1,403\frac{3}{5}$ cases.

Last year (1910) was one of the worst years that we have ever had, when 1,891 cases were reported, or nearly 500 cases above the annual average beginning with the year 1906; and when we compare the first five months of 1911, there was every indication that the year would exceed the year 1910.

	1910.	1911.
January	40	55
February	25	31
March	30	35
April	22	44
May	31	56
Totals	148	221

During those five months there were in the year 1911 (as per above table) seventy-three cases more than in 1910. Fortunately, however, about June 15, of 1911, the city commenced to treat the water with chlorine by the hypochlorite of lime process, and from that time on the number of cases dropped much below that of 1910, as shown in the following table:

	1910.	1911.
June	46	34
July	110	89
August	473	280
September	398	241
October	359	170
November	251	104
December	106	62
Totals	1,743	980

or 763 cases less. The number of the entire year was 1,201, or 202 cases less than the annual average for the previous five years. These figures would indicate that the opinion, that the condition of our water at least is accountable for a good portion of our typhoid fever, is well founded. We know that there are many sources of the fever, the principal ones of which are: First, water; second, milk; third, contact; fourth, carrier; fifth, flies, and sixth, importation (from summer resorts). Now, if the indication given in the 1912 reduction of cases is true, then the third and fourth sources will be lessened and they will be much further lessened by a better supervision of our milk supply and the removal of the fly-breeding places in the city, such as privy vaults and manure piles.

Tuberculosis.

During the year there were 1,158 deaths due to pulmonary tuberculosis, as compared with 1,234 deaths in the year 1910, which shows a decrease of 76, while other forms of tuberculosis showed an increase of 68 deaths for the year. This shows a small decrease, but it is a relatively larger decrease, because of the increase of population.

Watching the Milk Supply.

The consideration of the subject naturally comes close to tuberculosis, because of the possible transmission of the bovine type of the disease by milk to the human being, especially to the young. The supervision of the work of inspecting the milk has been put under the chemist to the Health Department, along with the supervision of the inspection of all food stuffs and water, thereby making the chemist the Chief of the Bureau of Dairy and Food Inspection. During the past year it would seem as though the force had about reached its limits as to the amount of work performed. The number of milk analyses increased from 15,702 in the year 1910, to 24,406 in 1911. This increase of 55 per cent. has been due to the greater activity and the longer working hours of the milk inspectors. This has resulted in a greater "milk-spill;" it having been increased from 13,901 gallons to 20,254 gallons, and yet only about 10 per cent. of the incoming milk was examined.

The very important work of inspecting the dairy farm was inaugurated with one man in the service. During the year 268 farms have been visited and "scored," i. e., rated. While it is true that the inspector was engaged part of this time overseeing the inspection work within the city, and therefore could probably have visited more farms, yet if he were to try to carry out the requirement to visit each farm under his jurisdiction at least once each month, he could not attend to more than 150 farms.

There are now about 1,900 farms from which milk is sent to the city, and a proper supervision of them would probably require a force of nearly twelve men, all of whom should be picked and well trained for the work.

Plumbing Division.

This division has been working very satisfactorily, especially during the past year. The system of records made possible by the clerks for the work is of high character, and has facilitated the work very much. The division is naturally and intentionally

developing and broadening into the Bureau of Plumbing and Sanitation. The "natural" tendency has been especially promoted by the beginning of the city's sanitary sewerage system, which will do away with the greatest source of the complaints, i. e., overflowing privy wells. In consequence of this, the investigation of the cause of nuisance will become more technical in character, which can best be given by a licensed plumber.

School Inspection.

The medical inspection of schools (public and parochial) has continued to give satisfaction.

It gives much pleasure to those who are watching the work to note the steady improvement in the physical conditions and cleanliness of the children, which has been the direct result of the persistent work in the instruction of parents as to the needs of their children. The personal work of the school nurse is invaluable.

Police Should Force Cleaning Private Alleys.

The police have always worked in harmony with this Department, and have been of valuable assistance in the routine and special work. But there is one phase of the work that could be much simplified and made more effective, i. e., the keeping clean of private alleys. We have called attention to this in several previous reports, but up to this time there has been no decision as to the feasibility of the proposition. We believe that better results can be obtained if a patrolman be held responsible for the cleanliness of his post, and we can see no reason why a patrolman should be caused to proceed in the round about way now in vogue, which involves the sending of reports and notices from the patrolman to the police station, to the Health Department, to the Health Warden, to the Marshal's office, to the police station, to the patrolman, and finally to the tenant of the premises. Why can't the patrolman notify the offender in person and then, if the nuisance is not abated, to prosecute?

MUNICIPAL FACTORY SITE COMMISSION.

A Public Agency That Has Already Proved Its Great Value to the Industrial, Financial and Real Estate Circles of Baltimore.

J. BARRY MAHOOL, Chairman.
ROBERDEAU A. McCORMICK,
JACOB W. HOOK,
GEORGE W. ROLLMAN,
WILLIAM MERRIKEN,
HERBERT J. WEST,
SAMUEL O. MALIN,
AUSTIN GALLAGHER,
FRANCIS LEE STUART,
C. WILBUR MILLER,
} Commission.

A. S. GOLDSBOROUGH, Secretary.

The Municipal Factory Site Commission has been in operation but one year. It was started as an entirely new adjunct to the list of municipal activities, and in consequence of this newness had to be organized, systematized and developed.

It has made remarkable progress for the short time of its existence and has won for itself a position of dignity, respect and approval.

The Commission has devoted its energies towards developing itself into a municipal agency that will be of important practical value to the industrial world of Baltimore. Its operations, as a consequence, have been more concrete than spectacular.

The Commission has been very fortunate in having behind it the active and persistent co-operation of the Mayor and the Board of Estimates.

The practical encouragement vouchsafed by those departments has enabled the Commission to make of itself a central force from which and through which the city could play an important part in advancing the industrial life of Baltimore.

Scope of Its Work.

The use of the words "Factory Site Commission," as the name of this Department, is somewhat of a misnomer. It gives an impression that the function of the Commission is limited to the mere finding and suggesting of sites. As a matter of fact, the Commission has been constituted as a city department to promote every phase of industrial enterprise and development. It has made itself useful in numerous fields. It has helped in the work of advertising Baltimore's advantages; it has helped to intensify the interest of the local financial circle in industrial expansion; it has evolved a plan for the founding of an industrial colony on the old Quarantine land; it has helped promoters of local industrial projects to get in touch with local financial interests; it has started a movement towards securing a more liberal policy among the railroads in their relationship with one another, thereby helping shippers; it has accumulated important data relative to the taxation of factories in Baltimore, the purpose thereof being to make our tax laws more attractive; it has undertaken the task of creating an institution which will make possible the more ready obtention of funds by sound industrial concerns; it has established a system of listing and mapping properties which gives to real estate men and prospective purchasers a central bureau to which to have recourse in their negotiations for factory sites; it has taken up the problem of multiplying the trackage on some of our streets, in this way giving to business men additional opportunities to secure railroad advantages.

These are but a portion of the Commission's activities. It can be seen, therefore, that its functions are broad and practical.

Its Special Booklet.

(1) During the course of the year the Commission issued a booklet entitled "A Few Important Facts about Big, Busy, Bustling Baltimore." The booklet purported to summarize Baltimore's great industrial advantages. The little publication

soon became very popular. In addition to the large number sent by the Commission itself to industrial firms all over the country, there was a request from many of our big wholesale and financial houses for copies of the booklet. They were sent by these wholesale and financial houses to their correspondents in the various States of the Union. There were 225,000 copies sent out, all of which reached individual persons who were interested. This booklet appealed so favorably and strongly to the various big financial and manufacturing establishments in Baltimore that the Commission received applications for 400,000 copies to be sent out by these houses to their clientele. The edition, however, was limited to 250,000 copies. The distribution of 225,000 copies represents a cost in postage of $4,500. The distribution was so managed, however, that the $4,500 in postage was saved.

A second edition of this booklet, with some additional matter embodied, was issued about the first week in January. A copy of this booklet is inserted in every piece of out-of-town mail that goes out from the Commission's office. There are applications now on file, from various business houses in town, asking for over 50,000 of these booklets for their own use.

The Convention edition of the booklet was the largest medium of advertising, relative to both city and Convention, which was sent out from Baltimore.

Developing Industrial Colony.

(2) The Commission, in its search for available property to be utilized for industrial ends, discovered the possibilities of the old Quarantine land, and took up with the Board of Estimates the propriety of exploiting it as an industrial center. The Board of Estimates approved the plan and pushed the enterprise forward with great vigor. As a consequence, a definite scheme of development has been worked out, through the assistance of the Topographical Survey Commission; and the lots, for industrial uses, have leaped into marked popu-

larity. Through the agency of the Factory Site Commission forty-eight acres have been sold or leased on the basis of $500 per acre, subject to certain limitations. These limitations reserve to the city important water-front rights and they restrict the use of the land to industrial operations. There are still more than 125 acres left.

This colony promises to be of infinite practical importance. Within a year nine large, active enterprises will be constructed and in operation. But for the work of the Commission, some of these industries would have been lost to Baltimore. The making of this industrial colony will mean industrial development all along the river front.

That is why it is so desirable for the city to buy up the "flats" up through the Middle Branch or Spring Gardens section, with the view of bulkheading the "flats" and filling in behind the bulkheads That will make splendid water-front and industrial property—under the control of the municipality

Hand in Hand With Real Estate Men.

(3) In addition to the Quarantine property, the Commission, through the co-operation of the local real estate dealers, has succeeded in having listed on the books of the Commission over 300 different pieces of industrial property. These properties are scattered all over the city. They are located on maps so that a person, who may be making inquiry, can by a glance at the map see what properties are available in the locality where he wishes to establish himself. The real estate men find this list very valuable; because when they have inquiries for certain sites, and have not themselves what their client wants, they seek the help of the Factory Site Commission in finding what is needed.

The Commission is very diligent in its efforts to protect the real estate men who list their properties at the Commission's office. Nothing is ever done over their heads.

Industrial Loan Corporation.

(4) The Commission has taken the preliminary steps towards the formation of an "Industrial Loan Corporation." The purpose of this move is to provide a company with sufficient capital which can and will, after proper investigation, make it possible for manufacturing concerns to borrow money. The value of the "Industrial Loan Company" will be felt by local manufacturing concerns, already here and operating, as well as by new enterprises seeking to make Baltimore their home.

The scheme of operating the proposed "Loan Company" will make of that corporation an important factor in feeding the local banks with additional business. It is not the purpose to make the new company a banking house in itself. Its main function will be the guaranteeing of notes, thereby making it easy for a borrowing factory to secure a loan at its own bank.

This same system, or one somewhat analogous thereto has been operated in other cities with immense success.

It is the hope of the Commission to reach the general body of the people through the various commercial and improvement associations. A multiplication of small subscriptions, plus such larger ones as may be secured, should net a fund of a million dollars. It is intended to start a campaign in this direction during the present year. The details are now being developed.

Tax Problems.

(5) The Commission, during the year, has been in personal touch and correspondence with a large number of the leading business men and commercial bodies relative to revising our tax laws so as to better encourage manufacturing development. As a consequence, it has collected a vast store of valuable data bearing on that all-important problem.

In Touch With Many Propositions.

(6) During the past six months the Commission has been in actual correspondence with 1165 different manufacturing concerns relative to locating here. This correspondence covered a wide range of territory, reaching as far west as California. Through it Baltimore's advantages were effectively depicted. Many of the enterprises examined were dropped for good and sufficient reasons. Out of the vast bulk of chaff, however, there have been selected some promising ones. With these the Commission is now working. There is every likelihood of their final establishment here.

Co-operating With Railroads.

(7) The Commission has been active in its campaign with the railroads. The Commission, after examining the methods and conditions of other cities, has been thoroughly convinced that Baltimore needs a further multiplication of its trackage on city streets. The problem of getting tracks into a factory is every day becoming more and more of a determining factor in the great field of industrial competition. That is why the Commission is working diligently to secure more tracks on more streets, thereby multiplying the places where factories can establish themselves with railroad advantages at their very door.

The Commission, furthermore, is trying to work out with the Pennsylvania Railroad, the Baltimore and Ohio Railroad and the Western Maryland Railroad a plan for the laying of an interlacing network of tracks on some of the streets east of Jones Falls, north of Baltimore street, and within the territory now touched by the Pennsylvania and the Western Maryland systems. It is hoped to evolve a plan under which the cars of each and all three railroad companies can and will be handled on a union basis. Such a plan will create, in the section above described, a magnificent industrial district. Such a district would be bound to develop, because all three rail-

roads would be available there and the district itself would be at the threshold of one of the very best labor sections in the city.

"Financial Circle."

(8) The Commission has organized a very valuable auxiliary to itself, which it calls "The Baltimore Financial Circle." The circle consists of over seventy of the leading financial men and financial houses in Baltimore, who have had themselves registered with the Commission. This list plays a very important function in the work of the Commission. Projects which seek location in Baltimore usually have some item of finance connected with each such proposition. Every such proposition, therefore, which is submitted to the Commission, ultimately finds its way, through the Commission, to the above described circle of "seventy." In this way, a good proposition is given an opportunity of having some one or more of the local financial interests take up the task of promoting the enterprise. This system keeps the Commission and the financial circle in constant touch with one another, and provides the financial circle with additional chances to pick up money-making propositions.

Advisory Financial Committee.

(9) The Commission has formulated a system under which any proposition which is submitted to the Commission is first made to run the gauntlet of expert financial scrutiny before the Commission sets thereon its seal of approval. A special "Confidential Financial Committee" has been secured, consisting of some of the best financial and industrial brains in Baltimore. This special committee, as the result of its desire to help in the development of Baltimore, gives its services without cost. Every man on the Committee is at the present time conspicuous in Baltimore's business circle. The assistance given by this Committee has been of immense value. The Commission feels that it has been especially fortunate in securing the help of men of such standing.

JAIL BOARD.

Discussion of Problems Bearing on Prison-Made Goods—The Handling and Curing of Drunkenness, and the Ways and Means of Aiding Probationers.

MOSES N. FRANK, President.
FREDERICK W. ECKELS,
JOHN T. FORD,
GEORGE M. HENDERSON,
HENRY P. HOFFMAN,
JOHN T. RADFORD,
CHARLES A. IRWIN,
WALTER L. ALEXANDER,
JAMES A. McQUADE,
Board of Visitors.

CHARLES A. HOOK, Warden during 1911.
BERNARD J. LEE, Warden at present.

With the completion of the new additions to the Jail, thereby adding 280 reinforced concrete cells equipped with necessary toilet accommodations, etc.; the addition of a new bathroom for the female department; the installation of five new telephones with underground system of wiring, and with the contemplated improvements to be made this summer, consisting of the tearing down and removal of the old shop buildings and steam vat in the yard; the removal of the kitchen, storeroom and bakery to the first floor of the new shop building, and the occupancy of the second story as the prisoners' dining-room, thereby eliminating the present unsanitary condition of the prisoners eating in the corridor opposite their cells, we feel that this institution will be equal to any of its kind in the country.

We especially call your attention to that portion of the Warden's report regarding habitual prisoners, both male and female. This class of prisoners is continually coming in and going out of the city Jail, which seems to be a sort of clearing house for them.

We recommend that the laws be changed so that such continual violators of the law should receive longer sentences, thereby ridding the community of them for the time being,

and saving time and expense in continually hauling them back and forth from station houses and courts.

The discipline of the Jail during the year has been up to its usual high standard. The Board takes pleasure in calling your attention to the complete reports of its executive officers showing the workings of the Jail for 1911 and compliments them upon their excellent work during the year.

In conclusion, we desire to refer to the excellent work done by the Prisoners' Aid Association during the year and to express our admiration for the good people who are so earnestly endeavoring to improve the moral and spiritual tone of our inmates.

Warden's Report.

The additions to the Jail, on the north and south ends, have been completed and are now occupied by the inmates. By this addition, 280 cells have been added, accommodating as many prisoners.

All the bed frames used in the new cells were made in the shops by the prisoners.

Previous reports show the many various improvements made during the past eight years, and with the execution of plans now under consideration, this institution, from a physical standpoint, will be second to none of its kind in this country.

Suggestions.

More light and better window ventilation is needed in the new additions, some of the cells being too dark on a bright day to allow of reading.

I think several small windows in the roof opposite the cells would serve better than one or two large ones.

Before converting the upper stories of the administration building into a hospital, we used it for the accommodation of witnesses. Under present conditions we are compelled to harbor and feed them the same as though they were prisoners. A separate place should be provided for them.

Work Shops.

Both the shops have been constantly operating during the past year, but have been seriously handicapped by the decreased number of prisoners, as at the time that the contracts were made, the Jail population averaged one-third more than it does at this time. This is due to several causes, among which are the short terms of cases doing time for default to pay fines. Under the old law, all such cases where the lowest fine was one dollar and costs, required in default of fine and cost, thirty days in Jail.

Under the present law, similar cases in default are required to serve one day in Jail for a fine of each dollar and fraction of a dollar. Thus, a fine of one dollar and costs, making two dollars and forty-five cents, commits the offender to Jail for three days; five dollars and costs, seven days; ten dollars and costs, twelve days; twenty-five dollars and costs, twenty-seven days.

Another reason is due to the change in the statute making it optional with city magistrates in the disposition of assault cases, when under the old law they were all sent to the Jail; now many are sent to the House of Correction.

Another reason, which in my opinion has great merit, is that Maryland is lining up with other progressive States in reformed prison methods, by adopting the probation system and aiming to reform and save young offenders by patrolling them under the proper guardianship until they, by their conduct, prove themselves worthy of being trusted with all the liberties of citizenship.

Earnings of Prisoners.

The resolution passed unanimously by the Board of Visitors, November 6, 1907, which gives to all prisoners doing three months and over one-quarter of their earnings, is still in force. I consider this act of the Board to be most beneficial in bringing about a feeling among the prisoners that the State, instead of holding the prisoner in contempt and as solely the object

of vengeance, is treating him as a man, the principal aim being to make him see himself in the true light; that when he leaves the institution, he will go with the impression that the State has treated him with just consideration, and is consequently encouraged to go and sin no more.

Soon after the beginning of my administration, a noted prisoner, serving a sentence of six years, and who had been leading a life of crime, said to me: "Mr. Warden, what shall I do when I go out? I have neither friends nor money, will I be compelled to steal again for a living? I have no chance here to make a cent." I afterward arranged with the contractor to pay him a weekly stipend of one dollar for extra work. Out of this he saved a nice little sum. This man started a little business of which we knew and after having been out for six years we received from him a New Year card, only yesterday, January 2, sending his good wishes, etc.

Prisoners Held for Trial.

Under our present system it was necessary to detain nearly one-half of the number committed in prison for trial for from ten to forty days, and some during the courts' summer vacation for ninety days and more, nearly one-half of which were subsequently released.

These figures suggest to my mind the need of a municipal or police court, where large numbers of these cases could be disposed of promptly, instead of holding them in one section of the Jail where the young, the old, the good, the bad, and indifferent are from necessity, thrown in contact with each other, consequently subjected to injurious influences, which is always in evidence in such places of detention.

Prison-Made Goods.

There is considerable agitation at times, by the public, on account of prison labor competing with outside labor. As a matter of fact, can any industry of any imaginable kind be done by prisoners that does not compete with outside labor?

To my mind the question reverts itself back to the question, Shall the prisoners be worked at all?

Inmates of prisons are members of the human family, and come from every grade of society; therefore, are they not (taking a broad Christian view) our brothers? If this be true, then are we not under obligation to see that they are not physically or mentally injured while incarcerated, and if this be true, then it is our duty to use every effort to make the prisoner a better man—better physically, mentally and spiritually. To do so you should give him work and teach him to do honest work; treat him fairly and justly; reason with him when necessary and show him right from wrong. Protect him from any imposition by guards and contractors, and require him to do his part right.

Appropriations.		Expenditures.	
Salaries	$36,650 00	Salaries	$36,385 72
		Balance unexpended to surplus credit	264 28
	$36,650 00		$36,650 00
General expenses	$28,500 00	General subsistence	$17,363 56
		Heating and lighting	458 59
		Machinery and supplies	794 44
		Clothing, dry goods, etc	2,738 07
		Sanitary	1,554 12
		Hospital drugs	637 90
		Hospital subsistence	195 01
		Incidental expenses	1,798 25
		Warden subsistence	999 92
		Filing cases, clerk's office	957 83
		Balance carried forward to 1912 to apply to auto van	1,002 31
	$28,500 00		$28,500 00

REVENUES.

Amount paid to City Comptroller, account	
Jail revenues	$12,756 87
Prisoners' shop earnings	3,368 78

OUTSTANDING ACCOUNTS.

Maryland Veneer and Basket Co.	$510 06	
Hawkins Shirt Co.	490 76	
United States Marshal	429 10	
U. S. Immigration Commissioner	54 50	
Frederick County	27 00	
Anne Arundel County	7 00	
Baltimore County	25 50	
		1,543 92
		$17,669 57

Outstanding accounts, January 1, 1911	$1,500 04

EARNINGS DURING YEAR.

Maryland Veneer and Basket Co.	6,439 12
Hawkins Shirt Co.	7,857 20
United States Marshall	1,655 30
United States Immigration Commission	84 00
Board county prisoners	48 50
Miscellaneous board	46 50
Sale junk	38 91
	$17,669 57

In addition to the revenues from the Maryland Veneer and Basket Co., the said company furnished the following amount of coal:

Maryland Veneer and Basket Co., 1,295 tons, amounting to $4,082 13

Physician's Report, by Dr. George L. Wilkens.

The total number of cases treated during the year was 8,204; the total number of prescriptions was 10,479, and the total number of special diets was 4,522.

There were ten deaths during the year, or a death rate of 1.21 per thousand cases treated. All of the decedents were ill when admitted to the Jail, and two of them died three days after their admission.

Alcoholism and How to Handle It.

During the year there were 437 cases of alcholism or delirium tremens, and there were six drug habits. Four of the drug habits were addicted to the use of opium or morphia and two to cocaine.

During the past few years there has been a marked decrease in the number of drug habits coming to the Jail and I think it affords a striking example of the efficient enforcement by the Police Department of the laws relating to the sale of narcotic drugs.

For the year 1910, 1,104 prisoners were committed to the Jail on the charge of drunkenness, and for the same year the sentences for disorderly conduct numbered 2,561. The total number of prisoners for the year was 9,775. The percentage of "drunks" to the whole number was about 11 per cent., while the percentage of "disorderly conducts" was about 26 per cent. The combined class of "drunks" and "disorderly conducts" furnished 37 per cent. of all admissions to the Jail for the year.

It seems to be perfectly safe to state that the greater percentage of persons arrested for disorderly conduct on the streets are under the influence of intoxicants at the time of their arrest.

Our experience shows about 500 cases of alcoholism or delirium tremens annually; they all require great care and attention and add to the mortality list of the Jail for each year.

In view of these facts, this subject requires more than a passing notice. By an Act of the Legislature, adopted a few years ago, the penalty for drunkenness, or disorderly conduct, in default of the payment of a small fine, was made a trifling term of imprisonment in the Jail, averaging from three to twenty-seven days. In many cases the sentence of the prisoner expires before he has recovered from the effects of his intoxication and many times the prison authorities are compelled to release him when he is not in a proper condition to be turned loose on the public streets. The same individual is guilty of the same offense repeatedly during the same year, and at times is returned to the Jail in a very short time after his release, in some cases as soon as twenty-four or forty-eight hours.

From our observations, we are forced to the conclusion that the present law is totally inadequate to correct or reform such abuses. It is simply absurd to expect that a trifling and insignificant stay in the Jail will limit or correct such offenders against law and order.

There is not the proper appreciation of the gravity of this offense and it does not receive proper consideration from the law makers. Probably there is no greater menace to society than the habitual drunkard, and there is no crime so destructive of human happiness, nor blights so many lives as drunkenness; nor is the harm limited to the offender, but, for the most part, is visited upon helpless wives and innocent children.

I do not believe that law can cure crime, but I do believe that the present condition can be greatly improved by wise legislation. The crime of habitual and repeated drunkenness ought to be punished by long terms of imprisonment, associated with some industrial occupation. Such individuals ought to be deprived of the opportunity of gratifying their morbid appetites for a sufficiently long period to cure the desire, and re-educate and reform them mentally, physically and morally. To accomplish this requires time and long separation from the exicting cause.

Prisoners' Aid Society.

During the present year we have had 311 probationers placed in our care; during the year 110 probationers have fulfilled the requirements of their probation and have been discharged; twenty-three have violated their probation conditions and have been incarcerated for said violation. We have 313 probationers at the present time. The reported earnings of our probationers for the year was $61,885.94.

We have interviewed in Baltimore City Jail 2,447 persons in connection with our probation work, taking biographical statements of 954 persons. Nine hundred and two cases that we have investigated in this way have come before the Criminal Court during the year. We have interviewed in the office for investigation, 1,815 persons.

Regarding the aid and relief and employment work, beg leave to state that within the year we have received into our "Home": 93 persons from Baltimore City Jail, 192 persons from Maryland House of Correction, 21 persons from the Penitentiary, 12 probationers, and 61 persons from miscellaneous sources, making a total of 379 persons admitted to the "Home."

Interviewed in Baltimore City Jail for employment	311
Interviewed in Penitentiary for employment	7
Interviewed probationers at "Home"	132
Interviewed firms for employment	101
Employment secured for	246
Number of men awaiting employment in "Home"	18
Number of men now in "Home"	30
Refunds received from beneficiaries of "Home"	$836.16
Families of prisoners visited	30
Miscellaneous visits for prisoners	180
Underwear, clothing, etc., furnished to	368
Eyeglasses furnished to prisoners	49
Transportation for discharged prisoners to homes and employment	50
Meals furnished to beneficiaries	23,693
Lodgings furnished to beneficiaries	7,674

SCHOOL BOARD.

Various Changes and Improvements That Are Bettering the Service All Along the Line—More Pupils in Daily Attendance.

THOMAS McCOSKER, President.
HENRY JOESTING, JR.,
ALBERT T. CHAMBERS,
JAMES M. DELEVETT,
HOWARD M. EMMONS,
SIDNEY P. THANHOUSER,
RICHARD J. BIGGS,
A. L. FANKHANEL,
EDWARD ROSSMANN,
} School Board.

One of the most important questions to be considered in connection with a system of education is that of providing a competent body of teachers.

Recognizing this fact, the State of Maryland, in 1865, authorized the establishment of a training school for teachers and in 1866 the State Normal School was opened in Baltimore city. This institution has been with us for more than forty years and the greater part of the expenses attending it borne by our taxpayers, yet our city schools have received comparatively few teachers from among its graduates.

As the State has under consideration the advisability of changing the location of the school, which will carry with it the cost of erecting new buildings, the Board, deeming it the proper time, appointed a committee to confer with the State authorities as to the feasibility of designing and equipping the new school for the work of training teachers for the public schools of the entire State.

Group Principals.

In the judgment of the Board, better results in school management and supervision would be obtained by discarding the present group principal system and replacing it with one more satisfactory and effective.

This matter is now in charge of the Committee on Rules and Board of Superintendents for study and recommendations, and the Board is awaiting their report before taking final action.

Increase of Salaries of Elementary School Teachers.

The much-deserved, though long-delayed, increase of salary of the grade teachers will soon go into effect.

Through the kind offices of the Board of Estimates and the Mayor and City Council, provision was made for an appropriation of $60,000, to be placed at the disposal of the Board of School Commissioners, for the increase of salaries of teachers in the elementary schools. The Board has referred the matter to its Committee on Rules, with instructions to formulate a plan for an equitable distribution of the increase and at the same time to provide for the removal of the many irregularities which have from time to time found place upon the salary schedule.

Distribution of Books and Supplies.

The attention of the Board has been called to serious defects in the methods employed in the storage and distribution of books and other supplies for the school service.

A preliminary report of a committee appointed to inquire into the matter tends to support the complaints. The committee is now making a thorough investigation and at the conclusion of its work will submit a plan for such improvement in that direction as may be found necessary.

Report of Sidney P. Thanhouser.

Shortly after my appointment as a member of the Board of School Commissioners of Baltimore, it was brought to my attention through personal visits to the school buildings and through information received from elementary school teachers, that there were heavy surpluses of books and supplies in the system.

In December, 1911, I placed the matter before the Committee on Accounts, who deputized me as a committee of one to investigate the circumstances. On December 15, 1911, the Board granted the use of an abandoned school building (No. 82, on Mulberry street, near Fremont), and I began, through inventories and visits to the school buildings, to locate the excess stocks referred to above.

After securing inventories from the five secondary schools, it was shown that they had forty thousand books in excess of actual needs, all of which books were titles used daily in the schools, and were in good, usable condition.

As the work progressed, and up until April 27, 1912, we had hauled to the warehouse the following books, all of which were in good, usable condition and in excess of actual needs in the system:

Books used daily in the schools	125,129
Books discarded from the curriculum, but in good usable condition	50,401
Total	175,530

The item of 50,401 discarded books were available for use in the night schools, for exchange (on which we receive cash credit) or to be used as reference books by teachers and pupils.

We were compelled to discard thousands of books which had become unfit for use, due to improper and inadequate storage facilities. These we were compelled to sell for 75 cents per one hundred pounds, owing to the fact that they were moldy and dirty.

While working on the books, we located heavy excesses of janitors' supplies, paper, office supplies, and manual training supplies, much of which was also hauled to the warehouse. Some of this material has been used against requisitions during the present scholastic year—thus saving expenditures on the part of the Board—and the balance was taken into account when estimates were made for the needs of the coming scho-

lastic year. In many instances, we were able to materially reduce the needs of particular items, and in other cases to entirely supply the needs.

Up to July 1, 1912, the warehouse system (through using the stock on hand and proper and regulated distribution of certain stocks still in the schools) have been able to make the following financial saving to the school system:

Delivery of old worn-out books to Apollo Publishing Company, Reading, Pa., at 75 cents per 100 pounds	$180 84
Net saving on lot of books rebound by the Apollo Publishing Company, Reading, Pa.	1,346 96
Delivery of old books to Joseph Ruzicka, Baltimore, Md., at 75 cents per 100 pounds	105 60
Delivery of old paper to Joseph Ruzicka, Baltimore, Md., at 30 cents per 100 pounds	5 79
Saving on books rebound by Joseph Ruzicka, Baltimore, Md.	113 20
Delivery of old books to Apollo Publishing Company, Reading, Pa., at 75 cents per 100 pounds	27 75
Saving on lot of books rebound by Apollo Publishing Company, Reading, Pa.	795 08
Delivery of old books and paper to Joseph O'Connor, Baltimore, Md., at 40 cents per 100 pounds	21 31
Total	$2,596 53

Out of the old discarded books located in the schools, we were able to send out on exchange on old purchases through Meyer & Thalheimer and Hochschild, Kohn & Co., a large number of books, for which cash credit was allowed the Board of School Commissioners of	950 00
Through the use of the excess stocks located in the secondary schools, together with some interchanges of books now in the school, we were able to reduce the requisitions from the secondary schools from $13,459.85 to $5,065.93, thus effecting a saving of	8,393 92
Through the use of the stock at the warehouse, and a regulated distribution of certain excesses which are still in the schools, we were able to reduce the requisitions from the elementary schools	20,000 00
Total	$31,940 45

In addition to the 175,530 books shown in the beginning of this report, we have hauled to the warehouse 12,525 books which had become unfit, due to continued use. As shown at another point of this report, by having some of these old, worn-out books rebound, we have been able to effect a net saving to the city of $2,255.24. The books are thoroughly disinfected by formaldehyde gases, the pages cleaned, and the rebinding is better than the original binding. Heretofore this material would have been sold as old waste paper.

Under past administrations, books which have been thrown out as unfit for use, have been sold to paper dealers for thirty cents per one hundred pounds, delivered at purchaser's warehouse. The most of the material sold since the inauguration of the warehouse has been at a price of 75 cents, f. o. b. our warehouse. This will show heavy savings to the system.

The Board of School Commissioners are allowed extra discounts on certain titles when old books are sent out in exchange. We were able to use a great deal of the old material located on exchange propositions, and as shown in another part of this report, have turned in from two dealers a cash credit of $950.

Owing to the February, 1911, readjustment of classes, requisitions for 15,751 books were referred to the warehouse. Under the old system, there was no check against the quantities on hand in any schools. By the tabulation of inventories at the warehouse, the majority of these requisitions have been returned marked "Filled by School No. 82," as it was shown that each school ordering already had a sufficient stock on hand. Where shortages did actually exist, the orders were filled from the stock at the storage warehouse. In addition to the books, we have also sent goodly stocks of paper, chalk and other supplies to the schools that have developed shortages. All of these would have been purchased under the old system.

After using such of the secondary stock needed for the scholastic year, 1912-1913, we have a heavy surplus of books, which

will be held in the warehouse for future requisitions, thus again saving the purchase of these books. This should be added to the saving effected by the warehouse.

From February, 1912, until the close of the present scholastic year, we filled numerous requisitions from the elementary schools for books to replace those which had become unfit for use. The mere fact of being able to give the children good, clean books in the place of worn out books is itself of vast benefit to the system.

At the meeting of the Board of School Commissioners on May 22, 1912, the Board of Superintendents expressed their wish that the warehouse be continued, as the proper and regulated distribution of books, etc., had been of material benefit to the school system.

In comparing prices on books and supplies purchased for the scholastic year 1912-1913, as against those for the scholastic year 1911-1912, I find that universally much lower quotations have been made. This is due, in my opinion, to the inauguration of the warehouse.

From report of the Secretary, the gross expenses of the warehouse—including shelving, wiring, hauling, salaries, etc., have been about $3,500. I think, for the first seven months, that this installation expense has been very light. St. Louis—a city of about the same size as Baltimore—have had their warehouse system in effect for many years, and their gross expense yearly is in excess of $10,000.

Night Schools.

There was a marked increase in attendance at the night schools during the year 1911, in comparison with that of the preceding year. The records give the number of pupils belonging in 1910 as 2,874 and in 1911 as 3,914, showing an increase of 1,040. To provide for this increase the Board found it necessary to open two more schools, one at School No. 1,

Fayette and Greene streets, and the other at old School No. 51, York road, near Merryman's lane, and to employ twenty-five additional teachers for the night school service.

Through the efforts of our First Assistant Superintendent, who has charge of the night schools, a new feature has been added to that branch of the system by the introduction of a course of lectures to be delivered at night, and so arranged as not to interfere with the regular studies. The subjects of the lectures will be both entertaining and instructive and will no doubt increase the usefulness of our night schools.

Summer Schools.

On March 8, 1911, the Board of School Commissioners approved the report of the Committee on Rules, based upon a recommendation of the Board of Superintendents, to establish a summer session in certain elementary schools for non-promoted and retarded children. Summer sessions were held in Schools Nos. 75, 92, 93 and 103.

The following statistics will show the work of the summer schools, in session from July 10 to August 31, 1911:

Gross roll	1,007
Average number belonging	797
Average attendance	691
Number of teachers	23
Average class attendance per teacher	30
Number belonging August 31, 1911	698
Number recommended for higher work	442

Statistics.

School Attendance.

	1910.	1911.
Average attendance	55,103	54,947
Average number belonging	61,734	61,219
Total roll	79,838	79,757

Number of pupils enrolled during year, high schools	4,654
Number of pupils enrolled during year, elementary schools	75,103
Total number enrolled in day schools during year	79,757
Average attendance for year ending December 31, 1911, high schools	4,155
Average attendance for year ending December 31, 1911, elementary schools	50,792
Total average attendance	54,947
Average number belonging for the year, high schools	4,411
Average number belonging for the year, elementary schools	56,808
Total average belonging	61,219
Number of pupils attending night schools, December 31, 1911	4,226
Number of high schools	5
Number of elementary schools	103
Total number of schools	108
Number of teachers in high schools, including principals	188
Number of teachers in elementary schools, excluding principals, but including assigned substitutes	1,529
Number of supervising principals	19
Supervisors and special teachers:	
Music	4
Drawing	9
Sewing	30
Cookery	14
Manual training	14
Physical training	3
	93
Total number of teachers	1,810

Average annual salary of teachers during the year	$759 39
Average per capita cost of education in all of the day schools, based on the number of pupils belonging December 31, 1911,	25 07
Average per capita cost in night schools, based on the attendance of December 31, 1911	5 71
Average cost per pupil in the secondary schools	68 14
Average cost per pupil in the elementary schools	21 85
Average cost per pupil in the Baltimore City College	80 62
Average cost per pupil in the Eastern High School	57 32
Average cost per pupil in the Western High School	44 93
Average cost per pupil in the Polytechnic Institute	89 97
Average cost per pupil in the Colored High School	68 07

The amount appropriated by the Mayor and City Council for current expenses for 1911 was	$1,742,184 00
The amount received by exchange and sale of old books was	1,029 74
The amount received from the State for books was	56,248 54
Balance from 1910 for high school commercial courses	5,526 95
From the State for high school commercial courses	10,000 00
The amount to credit of intestate estates, January 1, 1911, was	4,849 27
From intestate estates	9,448 29
Total for current expenses	$1,829,286 79
Amount expended	1,766,704 66
Amount unexpended	$62,582 13

School Attendance Department.

Number of cases investigated	48,892
Number of absentees	37,632
Number of truants	2,628
Number of non-attendants put into school	237
Number of special cases	7,395
Number of visits to homes	47,087
Number of visits to schools	7,709
Number refused permits to work	877
Number of magistrate cases	43
Number of prosecutions before Juvenile Court	75
Number of prosecutions before Criminal Court	3
Number committed to Parental School	54

School Accommodations.

The following is a summary showing the present number of buildings owned and occupied for school purposes and the buildings now in process of construction:

School Buildings Occupied.

Schoolhouses owned by the city	108
Dwellings owned by the city	3
Portable frame buildings owned by the city	34
Buildings, or parts of buildings, rented by the city	18
Total number of buildings occupied	163

New Buildings Completed in 1911.

School No. 2—Stiles and Gough streets; 24-classroom building.

School No. 51—Windermere avenue, Waverly; 24-classroom building.

School No. 60—Francis and Clifton streets; addition of eight classrooms.

School No. 76—Hull and Clement streets; addition of four classrooms and manual training-room.

New Buildings Now Under Construction.

School No. 70—William street and Warren avenue; 24-classroom building, should be completed by September 1, 1912.

School No. 64—Forest Park; a two-story addition of 10 classrooms, should be completed by April 1, 1912.

School No. 63—Ninth street and Westwood avenue, Walbrook; a two-story addition of eight classrooms, with assembly hall, manual training-room and cookery in basement; should be completed by April 1, 1912.

Baltimore Polytechnic Institute Annex—North avenue; should be completed by September 1, 1912.

Drawings of New Buildings Approved by the Board of School Commissioners.

School No. 22—Scott and Hamburg streets; 3-story, 24-classroom, with assembly hall, manual training-room and cookery in basement.

School No. 6—Ann street, near Canton avenue; 2-story, 16 classrooms, with assembly hall, recreation rooms, shower bath, etc., in basement, and a large open-air room on roof.

Rented Buildings Vacated.

School No. 51 Branch—Gilmor lane, near York road.

School No. 76 Branch—Hull street, near Fort avenue.

School No. 112 Branch—Pennsylvania and Fremont avenues. A total saving of $1,035 in yearly rental. No additional buildings were rented in 1911.

Portable School Buildings.

One transferred from School lot No. 67, on Old Frederick road and Fairview avenue, to Parental School lot, Old Frederick road, opposite Loudon avenue.

One transferred from School No. 91, Argyle avenue, near Lanvale street, to School No. 83, Lakewood avenue and Orleans street.

Additional Improvements Authorized in 1911.

The following is a summary of additional improvements authorized, and for which appropriations are available:

School No. 27—Lot and building.
School No. 83—Addition.
School No. 37—Addition.
School No. 99—Addition.
School No. 61—Lot and addition.
School No. 67—Addition.
School No. 34—Addition.
School No. 111—Lot and building.

School No. 13—Addition.
School No. 22—Additional appropriation.
School No. 27—Additional appropriation.
School No. 67—Additional appropriation.
School No. 83—Additional appropriation.
School No. 99—Additional appropriation.
School No. 93—For purchase of No. 1126 East Baltimore street.
For school in West Arlington.

HARBOR BOARD.

Progress of Work on the Piers—Great Future Involved in the Development of the Water-Front Street.

OSCAR F. LACKEY, President.
WILLIAM D. SANNER,
M. H. GOODRICH,
JAMES S. ARMIGER,
W. G. KNAPP.
} Harbor Board.

The work of the great pier system of the city was completed in March, 1911, one month in advance of the contract time. The total cost of construction of Piers Nos. 4, 5, 6 and East Falls avenue bulkhead, including all dredging, was $1,259,086.63. All of this work was new and original in design, the construction being entirely of reinforced concrete and steel.

We now have under contract the construction of a three-hinged steel rib bridge over Jones Falls at Pratt street, to take the place of the present old bridge, widening the same to 120 feet, being the full width of Pratt street west, this widening of Pratt street to continue east to President sreet. The estimated cost of this work, not including property, is $89,000. In order to keep open traffic on Pratt street and not to interfere

with the services of the United Railways and Electric Company and the Baltimore and Ohio Railroad Company, provision was made in the specifications that the bridge should be constructed in three sections. The first section has been completed and the excavation for the foundation of the abutments of the second section is well under way and the second section should be completed in the early spring. The work has not progressed as rapidly as this Department would desire, but there has been some delay brought about by the inability of the city to acquire the necessary property for the improvement, together with agreements as to the rights of the railroads operating on Pratt street. The property has been finally acquired and satisfactory arrangements made with the railroad and the work should now proceed without any further delays.

A contract was awarded the McLean Contracting Company for the construction of 1,000 feet of pile and timber bulkhead at the site of the old Marine Hospital, this being but a continuation of the work done in the years 1909 and 1910, the object being to make it possible for the city to reclaim a large area of desirable water-front property which is suitable for industrial purposes.

Water-Front Street.

Under the new $2,000,000 Dock Loan, passed at the election in November, 1910, this Department has prepared plans for a new commercial thoroughfare on the south side of the harbor, the same being prepared in three sections. The first section, which has been duly approved as provided for in the Acts of 1910 of the General Assembly of Maryland, provides for the widening of Light street, from Lee street to Hill street, and from thence a street diagonally from York and Light streets to Hughes and William streets; thence along Hughes street to Covington street and from Covington street to Montgomery street, the same to be 106 feet in width, to be paved

with belgian blocks on a 6-inch concrete base. There is to be constructed at Hughes and Covington streets a pier with two slips forming one side each of two other piers, in the event it becomes the desire of the city to further extend the pier system. The second section starts at Montgomery street, running south in the bed of Belt street, and thence by means of a curve parallel to and about 700 feet from the water front, or pierhead line, ending at Ludlow street. This plan has been duly approved by the Harbor Board and submitted to the Board of Estimates for their approval. The third section starts at Ludlow street and from there goes to Allen street and from Allen, still paralleling the pierhead line and diagonally to Beason street; thence along Beason street to Andrew street and Andrew street southerly to Fort avenue. It is proposed to make this a low grade street of the uniform width of 106 feet, the maximum grade to be 2 per cent.

Recreation Pier.

In addition to the south side improvements, plans have been prepared for the construction of a commercial and recreation pier in East Baltimore, south of Thames street, and lying between Broadway and Ann street. This pier to be a double decker, 150 feet wide by 500 feet in length. The lower deck to be used for commercial purposes and the upper deck as a recreation feature.

Developing the Port.

In addition to the work herein stated, I have given a great deal of time and attention to the future development of the port of Baltimore, trying to look far enough ahead to have the work now under consideration wedge in and form a part of the general scheme of development. A map of the general scheme was prepared and submitted in my annual report of 1910. In this report was included a new bridge connecting

Ferry Bar with Anne Arundel county. The estimated cost of this work, including bulkheads and bridge approaches, was $1,000,000.

The maintenance last year on Light Street Bridge was $9,100. Before making up my estimate for the year 1912, I made a thorough and personal examination of the bridge and found that it was in a most deplorable condition. The posts and upper caps and stringers were in many cases rotten, and if the bridge is to be kept in use, it will require immediate attention. I respectfully submitted this matter to the Honorable Board of Estimates and they authorized an appropriation of over $16,000 for maintenance for the year 1912. This cost of maintenance will never decrease and it is quite possible that each year there will be a slight increase, not alone due to additional work, but partly due to the yearly increase in the price of timber and other supplies.

Baltimore's Fame.

To give some idea of the prominence, and to what extent our new municipal pier system has advertised the City of Baltimore, I have received communications in relation to this work from the following cities:

Liverpool, England; Copenhagen, Denmark; Sydney, New South Wales; Havana, Cuba; Hawaiian Islands, Honolulu; Ottawa, Canada; Hamburg, Germany; Kiel, Germany; St. Johns, New Brunswick; Tokio, Japan; Isthmus of Panama, Panama; Norway; Seattle, Wash.; Los Angeles, Cal.; San Francisco, Cal.; San Pedro, Cal.; Oakland, Cal.; Marathon, Fla.; Washington, N. C.; Providence, R. I.; Boston, Mass.; Milwaukee, Wis.; Portland, Ore.; Jacksonville, Fla.; Norfolk, Va.; New York, N. Y.; Philadelphia, Pa.; Trenton, N. J.; Burlington, Vt.; Hartford, Conn.; Wilmington, Del.; New Orleans, La.; Chicago, Ill.; Galveston, Tex.; Appleton, Wis., and Kansas City, Mo.

SEWERAGE COMMISSION.

Construction Has Progressed to a Point Where the Great System Is Being Made a Matter of Immense Practical Value.

CHARLES ENGLAND, Chairman.
WILLIAM D. PLATT,
MORRIS WHITRIDGE,
IRA REMSEN,
JOSEPH EDWARD MOHLER,
WILLIAM W. McINTIRE,
} Commission.

CALVIN W. HENDRICK, Chief Engineer.

The total amount of contracts let during the year was approximately $2,500,000, and the approximate length of sewers and drains 353,284 linear feet, or approximately 70 miles, making the total length of sewers and drains contracted for and constructed to date about 230 miles, a large part of these being trunk sewers and drains of very large size.

At the Disposal Plant, units sufficient to take care of about 275,000 persons were completed and ready for connecting up the sewage from the houses in the city, on October 27, at which time a list of about 3,500 houses was forwarded to the Health Department for them to begin connecting up, thereby putting the sewerage system in actual operation, making 1911 stand out as an important mile-stone in the history of the city. The system is built on the unit plan, so that as the city grows, the units can be extended, thereby saving a large amount of money from lying uselessly in the ground.

Practically all of East Baltimore is now sewered or under contract; a large area completed in North Baltimore above Jones Falls; the Jones Falls Sanitary Interceptor, passing under Union Station and running as far north as North avenue is completed. At the crossing of North avenue we diverted an interceptor crossing under the Falls and running up through McMechen street, sewering at its source a large area bounded by Jones Falls on the east, McMechen street on the south, Fremont avenue on the west and Druid Hill Park on the north.

The low level interceptors have been completed from Boston and Hudson streets to Warner and Alluvion streets, and lateral sewers constructed in large areas in South and West Baltimore.

Considerable extra expense was saved by building the sanitary interceptor under the tracks at Union Station at the time the new station was being built.

Pumping Station Ready.

The Pumping Station was practically completed and the boilers ready to fire up on January 1, meaning that in February we will forward to the Health Department a list covering a large number of houses in the low level district to be connected up, relieving the harbor of large quantities of sewage now reaching it from this section of the city. In addition to this, we will begin pumping out of Jones Falls a large part of the daily flow which now drains into the harbor. This should be the means of relieving the existing condition of the harbor to a great extent.

One of the last contracts let during 1911 covered the extending of sanitary sewers across the sidewalks to the inside of the property line of about 3,900 houses. This means that in a short time we will send notices to the Health Department to connect up this number of houses. In addition to this we have a large number of dwellings connected to the testing plant in Walbrook and also a large number connected to the Forest Park Disposal Plant in the northwestern section of the city.

Jones Falls Plans.

Two of the most important contracts let during the year were Sections 1 and 2 of the concrete tubes enclosing Jones Falls from 200 feet south of Baltimore street to a point on Jones Falls in front of Union Station. When we first began

the study of the sewerage system for Baltimore, the possibilities of this improvement was one of the first that impressed me. You will find by our 1906 report that we estimated the cost at $1,600,000. It is gratifying to be able to state that the two contracts recently let amounted to $1,237,979.50, showing that we are well within our estimates.

There is no improvement the City of Baltimore will ever make that will be of such far-reaching benefit as the wiping out of this ugly gas through the heart of the city. In redeeming this broad strip of land through the city, it will enable the building of a roadway over it, as outlined in my 1906 report, thereby giving the city much needed relief in the way of north and south thoroughfares, which are now sadly lacking. It will not only improve the property to the extent of deriving revenue from additional taxes sufficient to pay the interest on the bonds and a sinking fund to redeem the issue, but will eliminate all of the present expensive bridges and structures crossing the Falls; will do away with an open sewer; relieve the mosquito question to a great extent, and will prevent flooding.

Three Important Steps.

A resume of the above facts shows that three most important steps have been accomplished in the sewerage and drainage work: first, the putting into actual operation of part of the great Sewage Disposal Plant at Back River; second, the starting of the contracts to cover Jones Falls; third, the completing of the Pumping Station.

The progress of the work to date convinces me that we will be able to complete our work according to the plans and estimates as outlined in my 1906 report.

CITY LIBRARIAN.

Growing Importance of the Department—Becoming a Specialist on Baltimore and Maryland Matters—Publication of "The Baltimore Book."

WILBUR F. COYLE, City Librarian.

It may be interesting to note that approximately 12,000 orders for supplies were received from various departments during the year, and were accordingly filled. The detail work necessary to the proper conduct of the purchasing feature of this Department is extensive, but is so systematized that the machinery runs very smoothly.

It is a matter worthy of note, too, that though hundreds of bills, representing thousands of purchases, were sent to the Comptroller, not even a minor error was discovered. It is not to be inferred from this statement that errors are expected or that they are condoned, but in the volume of detail work, such as passes through the City Library, it is a matter of congratulation that the human machine worked so perfectly.

There was expended for supplies, etc., as above explained, $27,947.17. Of this amount, $21,504.02 was charged against the City Library appropriation of $22,715, leaving a surplus of $1,210.98; $6,443.15 was spent by the City Library, but paid by the several departments that had funds against which such charges could be made; the whole, as stated, representing a grand total of $27,947.17, for all departmental printing, blank books, stationery, etc.

Library Work.

Strictly library work has been particularly interesting, and the Department has developed into an institution at once unique, and judging from the number of persons who use it, of much practical value. There is a great field for a library that specializes in Baltimore and Maryland matters and the City Library aims to cover that field. This does not mean

merely the assembling of publications; that is a routine incidental. What the City Librarian is endeavoring to do is to make his Department a storehouse of information, concerning the City and State. This necessitates a knowledge of history, an appreciation of the value of records (for the City Librarian is a custodian of records as well as other things); an understanding of plats, and the ability to read them intelligently; research work, and coupled with this a determined policy to possess everything obtainable that will add to the store of knowledge of Baltimore and Maryland. The scope of the City Library is not limited to matters purely historical, but includes data on financial, commercial, industrial, social and economic conditions, and a multiplicity of things concerning each of which a large number of persons in the community is interested.

Nor are investigators confined to Baltimoreans. It is surprising how many out-of-town persons come to the City Library for information. Sometimes it is an individual, sometimes a commission representing another municipality, but almost daily visitors from other localities call to study Baltimore. Baltimoreans have acquired the habit of referring visitors to this Department. This is as it should be, and it is a boast of the City Librarian that all are courteously received, and in no instance during the year has data been lacking upon the multiplicity of matters concerning which inquiries were made.

Pictorial Collection.

The collection of historical prints and pictures has grown to such an extent that nearly all the available space in the corridors on the third floor of the City Hall has been utilized. Some exceedingly interesting, and in several instances rare, specimens were received during the year. Books of exceptional value have also been acquired, and the Department now is in better condition than ever before.

An index of the ordinances and resolutions was completed during the year and reports of many municipal and State departments and private institutions (as hospitals, schools, etc.) were added to the files and indexed. Hundreds of questions relating to Baltimore history, laws, ordinances, etc., were answered.

The City Library is a United States Government depository for books, and consequently received all publications that emanated from the Government Printing Office. The Library attachés have been very busy with this particular branch.

Under direction of the Mayor, the City Librarian has compiled "The Baltimore Book," which gives a résumé of the industrial and commercial advantages of Baltimore; its municipal activities, etc. This work came from the press early in 1912.

DEPARTMENT OF LEGISLATIVE REFERENCE.

Agency for Assisting in the Collection of Data Usable by the Public for Public Matters—Offer of Aid to Legislative Members—Valuable Information Has Been Gathered.

HORACE E. FLACK, Executive.

The year 1911 has shown very gratifying evidence of the growing utility of this Department. In most cases, we have been able to comply promptly with requests for information; and in cases where the information was not on file, steps were taken to secure it at once. The nature of the functions of the Department make it necessary for us to be continually collecting information on important subjects, with especial reference to municipal questions and questions which are likely to be considered by the city or State.

After the November election, letters were sent to the members of the Legislature, calling attention to the work of the

Department and offering its services. This has been the policy pursued since its establishment in 1907 and it is expected that the Department will be used to a considerable extent by the members of the Legislature, particularly those from the city. We have made arrangements to receive copies of the House and Senate journals and all the printed bills, which latter will be indexed as soon as received, so that it will be possible at a moment's notice to know what bills are before the Legislature. In this way, city officials can examine bills which affect the city. It is hoped also that duplicate copies of all bills will be received, so that those desiring to do so can consult them here without having to go to Annapolis. This was done during the sessions of 1908 and 1910, and proved to be a great convenience.

The value of the work of the Department has been recognized by other cities, and since its establishment similar departments have been created in St. Louis, Kansas City, Mo., Milwaukee and Minneapolis. A committee appointed by the Board of Estimates of New York city has recommended that a similar agency be established there and similar steps are being taken in Philadelphia. Chicago and Buffalo are also considering the question and it is quite likely that other cities will follow suit within the next year. Minneapolis and St. Louis established their departments during the past year. The National Municipal League regards the subject of sufficient importance to continue its Committee on Municipal Reference Libraries and Archives for another year. Additions to the number of departments in sister cities promotes mutual co-operation and facility of exchange of information, thereby increasing the efficiency of each department.

During the past year there were added to our collection 218 books and 1,552 pamphlets, making a total of 1,544 books and 7,069 pamphlets now on hand. In addition to the books and pamphlets, there is quite a collection of clippings and magazines, legislative bills of other States, as well as a com-

plete file of the bills for the last two sessions of the Maryland Legislature. The Department spends very little for books. Most of the books cost very little, though the value of the collection is hard to estimate, since quite a number of very valuable and rare reports have been secured at little or no cost. We now have on file the charters and ordinances of nearly all of the more important cities of the country.

During the year more than 4,700 communications were sent out from this office, either asking or giving information.

TOPOGRAPHICAL SURVEY COMMISSION.

Progress of the Good Roads Development Leading Into Baltimore City—Plans Evolved for Advancing the Physical Conditions of All Sections of the City.

JOSEPH W. SHIRLEY, Chief Engineer.

During the year 1911, besides numerous special studies to be mentioned later on, the Department has been particularly occupied by the supervision of the thoroughfares improved by the State Roads Commission. This supervision was begun several years ago, the intention being to have one city department look after all affairs in any way connected with the work, thereby avoiding much confusion.

So far one road has been entirely completed, the Falls road, and two others, the Harford road and Garrison avenue, will, should no extraordinary mishap occur, be completed by the early spring. A great many difficulties have been met with in these cases, which was, of course, naturally to be expected. On both of the latter roads it was found that after the official grade had been established by the City Surveyor that a re-establishment would often aid matters greatly, more especially from the property owner's point of view. These changes very

naturally caused a good deal of confusion for the time being by upsetting the intended mode of procedure, but in by far the larger number of cases the benefits derived justified the action.

Garrison Avenue.

Garrison avenue is at present completed throughout its length, but its connection northwesterly into Liberty Heights avenue, and the latter avenue from Garrison avenue to the western city boundary remain unimproved. This is due to legal complications involved in the sewerage connections.

Harford Road.

Harford road is completed in so far as the old road proper is concerned, but the new cut-off, together with the bridge embraced, will not be finished until the spring. The unfinished portion is, however, in an advanced state of progress, and it awaits only for the green fill to be settled by the winter wetness before the bridge can be completed and the paving be laid.

Belair Road.

Proceedings were begun quite a good while ago for the condemnation for the widening of Belair road, but the property needed has not yet been acquired, and of course no construction can be undertaken.

Frederick Road.

It is proposed during the year 1912 to make an excellent thoroughfare out of Frederick road, the bed of the road having already been purchased by the State Roads Commission. Condemnation proceedings are now well under way to obtain the additional property necessary for the new crossing at Gwynns Falls, and with a well designed twin arch skew concrete bridge spanning both the Falls and the Western Maryland Railroad, this locality will present a highly satisfactory appearance.

Reisterstown Road.

Another highly important road, in connection with the fund allotted to the city by the State Roads Commission, is the Reisterstown road, the city portion of this road having also been purchased by the Commission. Plats have just been completed for the widening of this old turnpike, and no doubt proceedings will be begun to carry out the plan early in the new year. The final plans submitted call for a width of ninety-five feet from Fulton avenue to Liberty Heights avenue; from Liberty Heights avenue to the junction at the Pimlico Gate to Druid Hill Park the width is to be ninety-one feet; and from the Gate to the northern city boundary the width is to be eighty feet. While these dimensions are not at all broad in comparison with the modern trend in constructing important highways, they are about the best that can be obtained under the conditions, and when completed this road should present a very attractive appearance and sufficient space will be afforded for traffic.

The Fallsway.

Aside from the superintendence of the State Roads Commission's construction within the city, the work which required the greater amount of the Department's time was that of the Jones Falls project. The Commission on City Plan, soon after its creation, requested the Department to make an extensive plat of all the property bordering the Falls for at least one block on each side. This necessitated increasing our force by eight men, who were kept constantly in the field mapping the area. By the latter part of May these plats were all completed and were turned over to the Commission as a basis for study of the proposed thoroughfare. Soon afterwards, by a resolution of the Commission, the Department was asked to submit a comprehensive plan for a highway extending from Baltimore street northerly to connect with Guilford avenue.

Green Spring Parkway.

Another plan for improvement is that of the so-called Green Spring Parkway. The Department studied the neighborhood surrounding the present Green Spring avenue with a view of making it more accessible and usable primarily as a pleasure thoroughfare.

Gwynns Falls Parkway.

Gwynns Falls Parkway is another proposition similar in a way with the Green Spring Parkway, except that in this incidence the connection is between two parks, Druid Hill Park and Gwynns Falls Park, now separated by a network of city streets through which one has to traverse to make the journey from one park to another. This new connection would afford an ideal link.

The Alameda.

Considerable comment has been made from time to time in the reports of this Department concerning the opening of The Alameda. This boulevard, it will be recalled, unites Clifton Park with Venable Park, and thence westerly via Thirty-third street to Wyman Park. The proceedings for its opening had reached the condemnation stage when a protest was made by the Gilman estate that the construction of such a street would seriously injure their property, and they petitioned for a changed line. After a conference with all concerned, an alternate line has been submitted, which will very likely prove satisfactory to the city as well as the property owners, and the final decision will be made very soon.

Light Street and South Baltimore.

Still another section the Department was requested to report upon with a view of improving the transportation facilities, was the southern portion of the city, from Lee street to Light Street Bridge. Already definite plans are under way for the

betterment of the water front along the south side of the basin, the important undertaking being the so-called Water Front street and a new municipal pier, all of which is under the supervision of the Harbor Board. So, with the idea of formulating a broad civic improvement for all of the section generally known as South Baltimore, the Department was asked by a resolution adopted by the Commission on City Plan to submit a study. These plans cover, among other things, the elimination of all railroad grade crossings, especially for the new lines of the Baltimore and Ohio Railroad and the Western Maryland Railroad; a thoroughfare to connect the central business section of the city with the proposed new bridge to take the place of the present Long Bridge, and a series of highways throughout the territory to afford ample means of intercommunication with various important locations.

Bill Boards.

It would not be amiss for the city to take some action to modify, at least, the billboard nuisance. This is a question, it would seem, that badly needs controlling and the sooner some action is taken in regard to it the better for the city as a whole.

Care of Shade Trees.

There has recently been made by the Water Engineer a suggestion that the area of the water shed of the new water supply for the city be turned into a forest preserve and park. This brings very forcibly to mind the plan for the city to organize a department, in charge of a capable forester, to supply our parks, squares, streets, etc., with shade trees. At present the city has no control whatever over trees planted along the sidewalks of streets and consequently these trees are as a rule very ill kept and are constantly being mutilated by public service corporations and others who find them in their way. The Department has recently collected quite a good deal

of data concerning the designing of residential streets, and we have observed from this information that the cities making the best showing in the way of attractive streets are those which have a forester in charge. Here in Baltimore we would, in all probability, need some legislation for the means sought.

SUPERVISORS OF CITY CHARITIES.

J. HALL PLEASANTS, M. D., President.	
JAMES M. AMBLER,	
JOHN BLACK,	
DR. CARY B. GAMBLE, JR.,	
DANIEL GREENBAUM,	Supervisors.
MRS. MARY K. MILLER,	
ELISHA H. PERKINS,	
JAMES R. WHEELER,	
DR. J. WHITRIDGE WILLIAMS,	

NATHANIEL G. GRASTY, Secretary.

Under the City Charter the Supervisors of City Charities are entrusted with the care of the following classes of dependents of the City of Baltimore:

The indigent aged and infirm.
The indigent sick.
The indigent insane.
Dependent children.
The temporary care of homeless men.
The transportation of the non-resident poor to their homes.

To carry out this work the Supervisors maintain institutions at Bay View, where about 1,700 inmates are provided for, and conduct three city dispensaries for the care of the sick. They, moreover, contract on a per capita basis with numerous private and State institutions for the care of the sick, of the insane, of homeless men, and of dependent children. They also secure and supervise free private homes for dependent

children. This outline of the work of this Department for the year 1911 will give some idea of the several activities of the Supervisors.

At Bay View, the city is just beginning to reap the benefit of large expenditures for new improvements which have been made there in the past few years. In August, the new hospital, known as "Ward A Building," was finally completed and occupied by patients. As explained more fully in a previous report, this building is the first unit of the City Hospital for the care of chronic cases which the various private hospitals in the city refuse to provide for. It is so planned and placed, that additional units may be added as the growing needs of the city require. It was expected that this building would be completed and ready for occupancy in April, but work progressed so slowly and unsatisfactorily that the Inspector of Buildings was finally compelled to take the work out of the hands of the contractor and to have the building completed by his own department. It has been highly commended by hospital experts from all over the country, not only because it so well fulfills the purpose for which it was built, but on account of the low cost of construction per bed attained in a fire-proof building of this type. Accommodations are provided here for about 160 inmates. The removal to this new building of the chronic hospital cases from the wards in the east and west wings of the old main building has given additional room in the latter building for the care of the aged and infirm who have been crowded in the tunnel and basement here, and it is now proposed to use the old building exclusively for infirmary or almshouse cases.

New Dining Room, Etc.

The Board of Estimates has very wisely provided $75,000 in the appropriations for the year 1912 for a new building with dining-rooms, kitchen and bakery, which was urgently

asked for by the Supervisors. It is proposed to construct a two story and basement building, partly on the site of the old power-house, with dining-room accommodations for about 1,100 inmates. Considerable additional dormitory space will be indirectly provided by the use of this building. The inmates of the infirmary and almshouse now take their meals in various rooms scattered throughout the old main building. As soon as the use of these rooms for dining purposes is dispensed with, they can be turned into comfortable sleeping quarters for those inmates who are now crowded into unsanitary quarters in the tunnel and basement, thus considerably increasing our present dormitory space.

During the summer, new, wide and well screened porches were placed on the entire south front of the Tuberculosis Hospital. These will provide accommodations for about thirty-five additional patients, bringing up the total capacity of this hospital to almost 200. Except in the matter of better separation of the whites and blacks, the care provided for advanced tuberculosis patients at Bay View is satisfactory, while the per capita cost of maintenance of about $185 a year is surprisingly low, averaging about one-half the cost in similar institutions elsewhere. Better separation of the whites and blacks can only be secured by the erection of another building.

Handling the Insane.

The over-crowded condition of the two buildings at Bay View, used exclusively for the care of the insane, makes it increasingly difficult to properly handle this class of patients, and were not partial relief in sight through the opening of new buildings at the several State institutions in the near future, to which some of these patients will be transferred, the situation would be critical. We have now housed at Bay View 470 insane patients in two buildings, which were constructed to accommodate 360. During the latter part of the year 1912, it is hoped that about 200 insane may be taken

from Bay View to Springfield, Spring Grove and the new State Hospital for the Negro Insane. Attention has been repeatedly called to the condition of the building for the female insane in which 302 inmates are now housed. Several years ago it was condemned by the Inspector of Buildings as unsafe, and temporary supports were placed throughout the building, which have rendered it, for the time being, habitable. Frequent inspections of this building are made by the Inspector of Buildings, who reports no recent changes of importance, but we do not believe that the city will be justified in making use of it for more than a very few years longer.

Extensive renovation of the main building or almshouse cannot be delayed much longer. This building was erected fifty years ago and very little has been done to it since it was first built. When it is recalled that this building is about 700 feet in length by 60 feet in depth, and four stories high, the extent of such an undertaking can be appreciated. The building must be re-floored throughout, and an entirely new plumbing and ventilating system installed.

Public Institutions.

For the care and treatment of the various city charges outside of Bay View, contracts on a per capita basis have been entered into with twenty-nine institutions. Under the City Charter, lump appropriations to the institutions dealing with dependent children, or dealing with the insane, or with the sick in hospitals and dispensaries, or homeless men, is forbidden, and such institutions as the city contracts with for the care of these classes are paid on a per capita basis for work actually done. The Supervisors are required to exercise a rigid supervision over these institutions and to determine that each case cared for is deserving of city aid. For this purpose they employ a small force of trained visitors in connection with the city office, who are experts in this kind of work.

Care of Dependent Children.

The dependent children who have become city charges through commitment by the courts, or otherwise, are provided for by the Supervisors in one of two ways. They are either placed in free private homes or are placed in institutions. In each case, the religious antecedents of the child are considered. In all cases, such children remain in charge of and under the authority of this Department, and frequent visits by trained agents are made to the private homes and to the institutions, to determine if proper care and attention are being bestowed. This Department believes that where the home has been broken up, the normal child is being given the best chance to develop if brought up in a suitable private home, preferably in the country, and so far no difficulty has been met in obtaining a large number of good private homes. This policy has resulted in not only giving the child greater advantages, but has also resulted in a corresponding saving to the tax payers of a large amount which was formerly spent in the maintenance of children in institutions, and notwithstanding the increase in the population of the city, there is a steady annual decrease in the amount spent for the institutional care of children.

During the past year the Supervisors were requested to assume the charge of 198 children. Through careful handling of these cases, they were able to reduce to fifty-one the number of these children who became city charges, private charity providing for the remainder without charge. In forty-nine instances, relatives affording suitable homes were induced to take charge of children, and by this means, many families were held together which would otherwise have been disrupted. Suitable free private homes, other than those with relatives, were found for ninety-two children. Including those children which have come under our control in previous years, there are now 606 children in all who are wards of the city and under supervision. Of this number 297 are in private homes, without cost to the city except the trivial cost which visiting

and supervision by the agents of this Department entails. Two thousand two hundred and sixty-one visits were made by the Supervisors in the interest of these 606 children.

Financial.

No changes of importance, during the year 1911, have been made in the management of our city offices, located in the Court House and in the City Hall Annex. The cost of maintaining these offices has been $10,221.85 for the past year. This sum was largely expended for salaries and travelling expenses of our trained agents, whose duty it is to make a thorough investigation of the social status of all persons applying for city aid, to visit and inspect the numerous private institutions with which the Supervisors contract, and to watch over the welfare of the children placed in free private homes scattered throughout the State. The entire amount spent for the running of our city offices was more than returned to the city in the one item of money collected through this office from the "reimbursing insane." The amount received from this source and turned over to the Comptroller will be $17,713.65 for the year 1911. We should like to emphasize the fact that no hardship is inflicted upon the poor in connection with the collection of this fund. Only in the case of those patients whose families are well able to reimburse the city for a part, or all, of the cost of maintenance in institutions for the insane are relatives called upon to help defray the cost of their care. The Supervisors expended, during the year 1911, $576,322.31,* as compared with $530,210.95 in 1910.

*This $576,322.31 expended during the year includes an item of $125,000 carried in the budget for 1911 to the account of the Inspector of Buildings for the completion of the Bay View power house, and in an item of $5,000 appropriated in the same way for the laundry and the nurses' home at Bay View.

INSPECTOR OF BUILDINGS.

Statistics of Work Accomplished During the Year 1911—Certain Demands Which the City Should Meet.

C. E. STUBBS, Inspector.

There were 35,440 permits issued by this Department for the following:

2,393	Two-story brick dwellings.
157	Two-story frame dwellings.
95	Three-story dwellings.
106	Business places.
9	Churches.
1	Bank.
3	Office buildings.
13	Apartment houses.
1	Theatre.
3	Post-office stations.
1	Hotel.
1	Hospital.
1	Library.
673	Additions to buildings.
4	Schools.
8,190	Alterations and repairs to buildings.
760	Heating.
2,260	Gas piping.
559	Alarm gongs installed and inspected.
150	Power permits.
193	Elevators.
18,330	Electric permits, inspections, etc.
1,537	Condemnation and violation notices sent out.

The following schoolhouses and engine-houses were completed during the year 1911:

No. 59 School, No. 51 School, No. 2 School addition to Western High School, addition to No. 60 School, addition to No. 76 School, No. 36 Engine House, No. 38 Engine House.

Also the following buildings:

Addition to Baltimore City Jail, new elevators Court House; Bay View, mangles, porches, etc.; vault, Health Department; Ward building "A," Bay View.

The following is a statement of the work under construction:

Polytechnic Institute; No. 63 School, addition; No. 64 School, addition; power-house, Bay View; Pipe Line Pumping Station; No. 70 School.

The condition of the city property is generally fair.

The schools recently erected, of modern type, are in good order, while the older ones have reached the stage that requires considerable repairs to keep them up. The older schools require at this time painting, both inside and outside.

The Fire Department houses are in good order and compare favorably with any other city for service.

The Court House needs painting of exterior and interior. The removal of a great nuisance will be obviated when the Pipe Line Pumping Station is completed on South street, thereby shutting down the heating plant in the Court House, which has been a detriment to that building on account of dirt, smoke, etc.

The interior of the City Hall needs renovating.

The markets are not up to the standard they should be, but the Board of Estimates have appropriated a sum of money for the year 1912, and through this appropriation I hope to bring the majority of the markets up to the proper standard.

Bay View property is badly in need of repairs, as it has been allowed to drag for some years, and the Board of Estimates have made provision in the Ordinance of Estimates for the year 1912 to make repairs at this institution, and I hope to rectify conditions as soon as possible.

PARK BOARD.

Details as to the Miscellaneous Improvements Installed in the Various Parks—Resume of Expenditures Under the Million Dollar Park Loan.

GEORGE WEEMS WILLIAMS, President.
JOHN S. GITTINGS,
ALFRED E. BOOTH,
MILTON B. WILLIAMS,
JAMES T. STUART,
} Park Board.

WILLIAM S. MANNING, General Superintendent.
J. V. KELLY, Secretary-Treasurer.

During the past year, the work of making the connecting parkway between Druid Hill Park and Wyman Park was substantially completed, and this parkway will be shortly opened to the public. This is the first of the system of connecting parkways to be completed, and involves the expenditure of a considerable sum of money. The concrete bridge, which carries this parkway across Stony Run Valley and the Maryland and Pennsylvania Railroad tracks, is a part of this improvement. We believe that this parkway will be a source of pleasure and of considerable use to the people of this city.

As you are aware, it is proposed to connect Gwynn's Falls Park and Druid Hill Park by a parkway to be known as Gwynn's Falls Parkway, and Wyman Park and Clifton Park by means of Thirty-third street and the Alameda. All of these last mentioned streets or parkways will be one hundred and twenty feet in width, and a portion thereof parked. Ordinances have been passed providing for the laying out of these parkways, and the work of making these improvements will be done under the joint supervision of the Commissioners for Opening Streets and this Board. The Alameda, as laid down by ordinance, was duly platted and benefits and damages duly assessed, but owing to the protest of certain property holders, the question of the cost of making this improvement along the lines originally intended, was further investigated, and the

conclusion was reached that a better and at the same time cheaper route for this parkway could be established. Accordingly, an ordinance to change the route of this parkway will be shortly prepared and offered.

We would like to call your attention to that portion of our report for the years 1909 and 1910, in which was discussed the importance of acquiring the land necessary for these parkways. The value of this land is, of course, due to the growth of the city and its suburban development constantly increasing, and buildings are being erected, from time to time, in the bed of these parkways which will have to be condemned in order that these improvements may be made. It is, therefore, highly important that the land necessary for these parkways be acquired at as early a date as is practicable. We fully realize that these improvements involve the expenditure of large sums of money, but we think it the part of wisdom to condemn or acquire the land necessary for these improvements as early as possible, even if the work of completing the improvements may not be immediately commenced or completed.

The new improvements made during the year include grading the road bed from Wyman Park to Druid Hill Park, and constructing a pitch macadam road surface over this line of road, also the construction of a single arch reinforced concrete bridge spanning the Stony Run Valley and the Maryland and Pennsylvania Railroad tracks which are located in this valley, this bridge being forty-eight feet wide and two hundred and sixty-two feet long. A steel arch supporting the Huntingdon avenue railway viaduct in order to provide ample width and height for the purposes of the Wyman-Druid Hill road to pass under the viaduct was constructed. Electric conduits for lighting the road, catch-basins with their outletting drains were also constructed along this road, and at Cedar and Viaduct avenues, a concrete wall, with an iron fence upon it with reinforced concrete lighting posts, were constructed at the entrance from

Cedar avenue to the Wyman-Druid Hill road as well as a branch road from the end of Cedar avenue.

There was a large amount of planting done in the various parks, and a considerable amount of underground land drainage and surface water catch-basins and drainage lines constructed.

At Patterson Park, 175,000 bricks were laid on path surfaces, and additional tennis courts constructed. One and two-thirds miles of walk were constructed along the mill race in Gwynn's Falls reservation, and the steep slope below the mill race walk was covered with shrubs and other ground covering plants.

At Morris avenue and the intersection of the mill race a thirty-six inch pipe was installed to carry the sewerage-laden stream from Morris avenue to a point below the mill race, and a considerable amount of grading, path building, lawn construction and shrub planting done there.

At City Springs Square and at Carroll Park shelters were constructed for the children's playground areas.

At Clifton Park a large amount of filling was done along Washington street and the Baltimore and Ohio Railroad.

At Swann Park a considerable amount of grading, and at Latrobe Park extension, a large amount of filling material was used.

At Druid Hill Park, along Swann avenue, between Washington statue and the Madison avenue gate, there were 5,500 square yards of pitch macadam road surfacing laid, concrete curbs in place of cobblestone gutters constructed, electric light conduits installed, together with the electrically lighting of this driveway.

At Riverside Park there were 9,000 square yards of pitch macadam laid on the surfaces of the roads and paths, and all of the old style of park settees replaced by the permanent type of park seat, which is built on iron castings which have been deeply planted in the ground in concrete.

There were 38,409 people who played soccer in the various parks of the system during the year, and there were 189,713 people who took part in the various other games, not including baseball, in the various parks.

At Patterson Park 140,000 people availed themselves of the use of the outdoor swimming pool.

There were 297 picnics held in Druid Hill Park at the various picnic grounds for which use permits were issued.

There were 1,094 permits issued for the playing of baseball in Druid Hill Park, and 57 permits were issued for football playing in Druid Hill Park, and the lacrosse grounds were very much used.

Of the 19 tennis courts in Druid Hill Park, there was no record kept of the number of users, but they were largely patronized, while at Clifton Park there was approximately 5,000 games played on the 10 courts.

There were approximately 800 games of baseball played at Clifton Park where there are six diamonds. At the other parks these games were largely played and attended by spectators.

At Patterson Park the officers and sailors from the German battleship "Hansa" had entire use of the athletic grounds, swimming pools and ball fields on two or three occasions while their vessel was in the harbor. They also came to Druid Hill Park for a day's frolic of ball playing and were lunched from the Mansion House.

The municipal games held at Patterson Park athletic fields, on the twelfth of September, were very largely attended, in connection with which 700 athletes entered and 590 participated.

During the month of December a careful estimate was made at Patterson Park of the spectators during the games of that month, resulting in a figure of 49,700 spectators.

There were 28 permits issued for different teams of the city to hold meets at the Patterson Park athletic fields during the fall season and the record of attendance during these meets was 104,300.

On the Fourth of July, Patterson Park, Druid Hill Park, Clifton Park and Carroll Park athletic fields were turned over to the use of the Safe and Sane Fourth of July Celebration Committee and all of the day and evening great crowds attended these features.

There were 128 arrests during the year in Druid Hill Park, 96 of which were for reckless driving of automobiles. More arrests were made in Druid Hill Park than all of the rest of the parks combined.

SUMMARY STATEMENT.

Showing Payments Made on Account of Park Extension Out of $1,000,000 Loan in Each Section of the City, December 31, 1911.

Account.	Northwest.	Southwest.	Northeast.	Southeast.	Totals.
Purchase price of land	$235,356.06	$212,949.19	$218,341.11	$171,308.16	$837,954.52
Buildings on land	1,250.00	.....	.....	.....	1,250.00
Tax adjustments	477.26	586.60	18.16	.....	1,082.02
Acknowledgments	24.30	17.10	2.20	4.30	47.90
Recording deeds	220.00	89.65	87.95	34.25	431.85
Appraising property	1,475.00	150.00	425.00	950.00	3,000.00
Title examination and abstracts	3,130.40	2,666.65	1,746.30	1,139.95	8,683.30
Surveying	2,878.36	1,418.79	644.45	206.49	5,148.09
Olmsted Bros., advice and plans	910.27	750.48	876.07	62.50	2,599.32
Clerical and other help	1,229.01	1,098.83	1,625.01	474.99	4,427.84
Auctioneers and attorneys' fees	.....	50.00	100.00	.....	150.00
Advertising	208.38	.....	250.42	.....	458.80
Plats, maps, etc	42.20	26.58	1,102.50	.....	1,171.28
Car tickets	10.00	20.00	50.00	.....	80.00
Court costs	28.59	.....	.....	.....	28.59
Ground rent	.....	.....	87.00	.....	87.00
Totals	$247,239.83	$219,823.87	$225,356.17	$174,180.64	$866,600.51
Amount of loan	$250,000.00	$250,000.00	$250,000.00	$250,000.00	$1,000,000.00
Less discount on sale of stock	2,760.17	2,760.18	2,760.18	2,760.19	11,040.72
Appropriation	$247,239.83	$247,239.82	$247,239.82	$247,239.81	$988,959.28
Disbursements (see above)	247,239.83	219,823.87	225,356.17	174,180.64	866,600.51
Cash balance	.....	$27,415.95	$21,883.65	$73,059.17	$122,358.77

WATER DEPARTMENT.

Plans for the Construction and Development of the New Dam at Loch Raven—Activity in All the Various Subdivisions of the Department.

EZRA B. WHITMAN,
President and Water Engineer.
RICHARD BERNARD,
JOHN STERKEL,
CHAS. W. JONES,
TELFAIR W. MARRIOTT,
} Water Board.

Plans and specifications for the new dam to be constructed at Loch Raven, across the Gunpowder River, were completed, but owing to legal complications the contract was not let. This dam, instead of being built to elevation 237½ feet A. M. T., as recommended by Messrs. Freeman & Stearns, was designed to be carried to a height of only 186 feet A. M. T., with possibility of raising the elevation of the water to height of 192 feet, by means of flash boards. This will give a reservoir capacity of approximately two billion gallons. The city already has reservoirs with capacities of approximately one and one-half billion gallons, and this will give a total storage capacity of three and one-half billion gallons, which Messrs. Freeman & Stearns estimate will yield an average daily water consumption of one hundred million gallons per day. The present average daily consumption of water per day is seventy million gallons, from which it will be seen that the proposed dam, which can store water to elevation 192 feet A. M. T., will provide ample storage to meet the needs of the city for a number of years.

In connection with the construction of the dam, a number of properties were bought by the Water Board; these properties total approximately 1,450 acres in area.

Mount Royal Pump.

On July 29, the contract for the new pump and boilers at Mount Royal Pumping Station was let to the Bethlehem Steel Company. This pump will have a capacity of thirty million gallons per day, and will be the largest pump of its kind in this section of the country. This pump is sorely needed, as the capacity of the present pumps at Mount Royal Pumping Station are taxed to their utmost, in keeping up the supply of water needed for the high and middle services.

New Mains.

During the year approximately twelve miles of new mains were laid by the Department, most of these mains being laid to meet the needs of the rapidly developing sections of the city to the north and west. There were 2,272 new service connections made by the Department.

House Connections.

Plans were devised for making house connections in those sections of the city where improved pavement is laid in undeveloped territory without making it necessary to tear up the improved pavement for making such connections.

Decrease in Typhoid.

During the first five months of the year there was an increase of the number of typhoid fever cases over those of the previous year, and an improvement to the water supply of vital interest to our citizens was made by adding a strong germicidal chemical known as calcium hypo-chlorite to the water. The addition of this chemical was undertaken under the supervision of the Health authorities, and it resulted in a very large decrease in the number of typhoid fever cases, from June until the end of the year, the treatment of the water having been begun in June.

Lake Ashburton.

Lake Ashburton was completed in the latter part of 1910, and placed in service January 18, 1911. On January 20, leaks appeared south of the gate house and upon investigation, proved to be caused by settling of three 48-inch pipe lines leading to and from the lake. The lake was drained, and repairs on these pipe lines were completed on October 10, 1911. The cost of these repairs being $16,573.86. The contract for the keeper's house at Lake Ashburton was let during the latter part of the year, and construction was started on November 1.

Many Gallons Pumped.

The pumps at Mount Royal Pumping Station pumped 5,959,858,065 gallons of water to the Western High Service, and 2,666,028,514 gallons to the Middle Service. The pumps at the Eastern Pumping Station pumped 3,293,021,838 gallons of water to the Eastern High Service, and 762,013,133 gallons of water to the Middle Service. The pumps at the Western Pumping Station pumped into West Arlington Upper Service district 382,149,062 gallons, and 114,928,634 gallons into the Roland Upper Service district.

Manufacturing Valves.

In the machine shop, 632 gate-valves of sizes from two inches to twelve inches, and 115 fire-hydrants, were manufactured. Ninety new fire-hydrants were placed throughout the city, and 72 new meters were installed.

Receipts and Expenditures.

The total receipts of the Department from water rents, plumbing bills, sales of old material, rents, etc., were $1,106,691.22. The total expenditures of the Water Department and of the Collector of Water Rents and Licenses charged against

the Department receipts were $1,038,940.06. The surplus of $67,751.16 reverts to the general treasury. The total receipts were $46,488.75 greater than the receipts for the year 1910. Notwithstanding the fact that the surplus of $67,751.16 above mentioned reverted to the general treasury, a deficit of $31,013.80 will be carried into 1912, owing to the fact that the expense appropriation for the year was exceeded by this amount, and that the moneys from the unexpended appropriations cannot be legally used for other than the specific purpose for which the appropriation is made.

There were twelve appropriations for the year from three different sources of revenue as shown in the following summary:

1. Appropriations from the receipts of water rents, etc.:

(*a*) Original appropriation, SALARIES	$94,180 00
Expenditures	93,559 94
Amount unexpended	$620 06
(*b*) Original appropriation, EXPENSES	$480,500 00
Special appropriation	1,000 00
	$481,500 00
Expenditures	481,500 00

2. Appropriations from tax levy:

(*a*) New equipment for street fountains:	
Original appropriation	$600 00
Expenditures	600 00
(*b*) Changing distribution system Hamburg street crossing Baltimore and Ohio Railroad:	
Original appropriation	$2,000 00
Expenditures	2,000 00
Cost of this work to December 31, 1911	2,212 37

Excess taken from expense appropriation.

(*c*) Ten-inch main, Lawrence and Clement streets:

Original appropriation	$2,500 00
Expenditures	2,500 00

(*d*) Six-inch main in Garrison avenue:

Original appropriation	$2,700 00
Expenditures	2,700 00
Cost of work to December 31, 1911	3,044 77

Excess taken from expense appropriation.

3. Appropriations from the Water 1958 Loan:

(*a*) Sixteen-inch main in Fortieth street:

Original appropriation	$7,500 00
Balance from 1910 appropriation	14,289 00
	$21,789 00
Expenditures	19,985 58
Amount unexpended	$1,803 42

Surplus carried over for work to be done in 1912.

(*b*) New pumps and boilers, Mount Royal Pumping Station:

Original appropriation	$200,000 00
Expenditures	312 25
Amount unexpended	$199,687 75

Surplus carried over for work to be done in 1912.

(*c*) Ten-inch and six-inch mains in Harford road:

Original appropriation	$7,837 00
Expenditures	7,837 00
Cost of this work to December 31, 1911	23,099 55

Excess taken from expense appropriation.

(*d*) Thirty-inch and six-inch mains in Seventh street:

Original appropriation	$40,250 00
Balance from 1910 appropriation	1,468 29
	$41,718 29
Expenditures	37,894 74
Amount unexpended	$3,823 55

Surplus carried over for work to be done in 1912.

(*e*) For completion of High Service (Ashburton) Reservoir:

Original appropriation	$19,000 00
Balance from 1910 appropriation	27,806 27
	$46,806 27
Cash from Lane Brothers Company & Jones	558 94
	$47,365 21
Expenditures	41,175 18
Amount unexpended	$6,190 03

Surplus carried over for work to be done in 1912.

(*f*) Purchase of land and buildings in Gunpowder Valley, etc.:

Original appropriation	$2,000,000 00
Expenditures	115,977 69
Amount unexpended	$1,884,022 31

Reverts to 1958 Loan.

ELECTRICAL COMMISSION.

Summary of the Work of the Electrical Commission for the Year 1911.

RALEIGH C. THOMAS, Chief Engineer.

Conduit Construction.

There were constructed during 1911 800,858.50 duct feet of conduit, which, added to the 9,246,944.40 duct feet previously laid, makes a grand total of 10,047,802.90 duct feet of conduit constructed up to January 1, 1912.

In linear measurement this would be: Constructed during 1911, 80,789.80 feet, or 15.3 miles of street; previously constructed 787,966.60 feet; which makes a grand total of 868,756.40 lineal feet, or 164.53 miles of street covered by our conduit system.

Along with this line construction we have built during the past year 106 manholes, 3 junction-boxes and 187 distributing boxes. This brings the total number of manholes built since the beginning of the work to 1,068, of junction-boxes to 514, and of distributing boxes to 2,371. We have constructed also a total of 401 hand-boxes.

There were constructed during the year 689 house-service connections; the number previously constructed, 7,164; making the grand total 7,853.

New arc light or pole connections made during the year 1911 numbered 109, bringing the grand total since the beginning of the work to 1,020.

There were 14 police call-boxes, and 28 fire alarm call-boxes connected with the underground system, making the total number of these connections to the first of this year 90 and 185.

respectively. In addition to these we built 27 trolley taps during the year, making a total of 156 since the beginning of the work.

Alley Distribution.

In the districts where buildings requiring electric service are scattered, we have adopted a system known as "alley distribution." This system consists of allowing the poles to stand in alleys, and where the wires formerly crossed the streets overhead, underground conduits are built, thus confining the wires entirely to the alleys and clearing the streets of both poles and wires, the houses being fed from the poles in the alleys.

Up to January 1, 1912, we have provided accommodations for 8,615 houses through this alley distribution.

Notices to Remove Poles and Overhead Wires.

When the conduits are completed and the ducts ready for occupancy on certain streets or in a certain district, notices are sent to all companies and individuals operating overhead wires to remove both the wires and poles from such streets or districts within five (5) months from the date of notice.

During 1911 notices were issued to clear 58 city blocks of wires and poles.

Since the beginning of our work 474 city blocks have thus been cleared of poles and wires, and one has but to stop and reflect a moment upon the conditions that existed overhead prior to the operations of this Commission to fully appreciate what has been accomplished, both from an aesthetic point of view and also in the safeguarding of life and property from the dangerous net work of overhead electric wires.

Expenditures.

The cost of the work during the past year was $241,647.99, which includes operating and maintenance.

The following will show the total construction cost and money expended for operating and maintenance under the 1958 Conduit Loan.

Year.	Construction Expenses.	Construction Salaries.	Operating and Maintenance.
1909.....	$224,681 13	$15,919 99	$8,781 59
1910.....	313,713 18	15,937 02	8,589 42
1911.....	217,677 03	15,335 04	8,635 92

These figures include "special construction," for which we were reimbursed to the extent of $22,238.74, less sale of old material.

Duct Space Occupied.

Up to January 1, 1911, 2,317,417.50 duct feet were occupied by cables in the conduit system, which amount was increased during 1911 by 323,734.16 duct feet, making a total on January 1, 1912, of 2,641,151.66 duct feet. Of this grand total, 244,537.95 duct feet are occupied by cables from which the city derives no rental, being those of the Police Telegraph Department, Fire Alarm Telegraph Department, city lighting cables, and cables of the United States Government.

Revenue.

During 1911, the rentals actually collected, amounted to $113,024.57, bringing the total revenue collected to the first of the year to $666,053.01. The revenue collected during 1911 shows an increase of $16,166.66 over that of the preceding year.

In addition to the rentals collected during 1911 there was earned $21,773.25, but this latter amount is not collectible until 1912. Had the regular rate of rental been charged for the "non-productive" duct space above mentioned, the revenue for 1911 would have been increased by $12,226.90.

FIRE DEPARTMENT.

Summary of the Growth and Development of the Fire Department During the Year 1911.

RICHARD H. JOHNS, President.
COL. ISRAEL ROSENFELD,
SIDNEY T. MANNING,
} Commissioners.

GEORGE W. HORTON, Chief Engineer.
JAMES B. YEAKLE, Superintendent Fire Alarm Telegraph.
P. W. WILKINSON, Secretary.

Equipment.

A modern steel fireboat, of the most up-to-date design and equipment, known as Engine Company No. 39, placed in service at Pier No. 7, foot of President street.

Engine Company No. 40, temporarily placed in service at quarters of No. 20 Engine Company, North avenue and Tenth street, pending the purchase of a combination automobile pumping engine and hose wagon, which has been delayed, owing to efforts to secure reliable and practical equipment, and which will be placed in service at quarters of No. 12 Truck Company, Forest Park.

Two automobile hose wagons, purchased for use in connection with High Pressure Fire Service, and known as Hose Companies Nos. 1 and 2.

The number of fire-alarm boxes in service is 689.

The number of alarms for the year was 1,663.

The manual force of the Department consists of 851 men, the personnel of which is of the highest standard, and discipline most excellent.

The apparatus of the Department is in the best possible condition, representing the highest standard of modern fire-fighting

equipment. A close and intelligent surveillance of the equipment is maintained at all times, and necessary repairs and suggestions of improvements are made expeditiously as possible.

In the past year the wires of the Fire Alarm Telegraph Department have been placed in the subways as rapidly as possible, and at the present time at least 72 per cent. of the system is of this service.

Maintenance Cost.

The cost of maintenance for the year was $1,189,309.62, which includes all expenses in connection with installation of the High Pressure Fire Service.

The installation in its entirety of the High Pressure Fire Service will be completed in February of this year, and, in the opinion of the experts, who have investigated from time to time, the system generally is modern and up-to-date, if not superior of any installed in this country, and will be a most valuable adjunct to the fire department service of Baltimore.

ANNUAL REPORT

OF THE

Department of Review and Assessment

SUB-DEPARTMENT

Appeal Tax Court

FOR THE YEAR 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

REPORT

OF THE

DEPARTMENT OF REVIEW AND ASSESSMENT

SUB-DEPARTMENT

APPEAL TAX COURT

CITY HALL

BALTIMORE, MD., January 1, 1912.

To the Honorable the Mayor and City Council of Baltimore.

GENTLEMEN—We beg herewith to submit a report of this Sub-Department for the year ending December 31, 1911.

The taxable basis for 1912 is shown by the following statement delivered to the Board of Estimates and to the City Collector on October 1, 1911. It includes, according to custom, besides the various items of property upon which a levy is directly made by the Mayor and City Council, an estimate for 1912 of the amount of deposits in savings banks upon which the local tax of 18¾ cents per $100 is collected by the City Collector under direct levy by the General Assembly (Code, edition of 1904, Article 81, Section 89).

Real estate (full city rate)		$328,120,398
Real estate (suburban rate)		16,438,656
Real estate (rural rate)		28,092,448
Personal—Individuals, firms and foreign corporations	$44,739,697	
Less plant exemption	4,903,535	
		39,836,162
Shares of Maryland corporations (estimated)	$46,281,923	
Less plant exemption	5,281,923	
		41,000,000
Distilled spirits in bond (estimated)		900,000
Securities (30-cent rate)		179,412,676
Deposits in savings banks (estimated), (18¾-cent rate)		90,000,000
Total		$723,800,340

The taxable basis for 1912 shows a net increase of $25,665,172 over the basis for 1911. Real estate of all classes advances from $361,650,644 to $372,651,500, a difference of $11,000,856. Full rate real estate assessments have been increased by $8,083,351, while the increase in suburban class realty is $3,676,469, due in part to revaluations and new improvements and in part to the reclassification of rural rate property. Security assessments of $165,834,235 for 1911 have been replaced by assessments aggregating $179,412,676 for 1912, the substantial growth of $13,578,441 in the assessments of evasive form of intangible property reflecting great diligence on the part of the assessing force.

The effective work done by the real estate assessors is only partly revealed by the figures above given, since the increases mentioned would have been much greater had there not been very substantial reductions in the particular districts which were embraced in the regular review work of the year. No less than 5,450 old assessments were reduced on the initiative of the court amounting to an aggregate loss in basis of $1,879,109. In addition to this there were abatements of $178,238 on 302 appeals filed by property owners, making a grand total of $2,057,347 in realty abatements alone. It thus appears that every $7 added to the realty assessments is offset by $1 deducted.

Tangible personalty of individuals, firms and foreign corporations was affected by the abatements made necessary under the new $300 household effects exemption act and by increased plant exemptions. The policy of wiping off uncollectable accounts was continued, and it is therefore believed that the actual amount of taxes collectible on this class of personal property will in reality be greater than it was for the previous year.

HOUSEHOLD EFFECTS EXEMPTION

By the Act of 1910, Chapter 619, it was provided that "all bona fide residents of the State owning only household effects

the value of which is less than $300, shall be exempt from taxation on the same." The Act applies only to Baltimore city and Baltimore County. As it did not go into effect until January 1, 1911, at which date the assessments in Baltimore city for the year 1911 had already become "final and conclusive" (under Section 171 of the City Charter) the exemptions became allowable for the first time for the year 1912. While doubt has been expressed both as to the constitutionality and as to the fairness of this narrowly defined exemption, which though affecting State as well as local taxes, is confined in its operation to only two taxing divisions of the State, no test has thus far been made of the validity of the new Act.

REASSESSMENT RESULTS.

The reassessment of real estate during 1911 shows these results: 16,031 parcels, covering an area of 1,876½ acres, were reassessed at a total of $50,572,782, replacing former assessments of $47,089,380. This does not include the reclassification of property or the assessment of new structures. Since the beginning of the policy of systematic revision, 80,831 parcels have been reviewed and former assessments aggregating $211,938,731 have been superseded by revised valuations of $259,385,235, showing a total net increase of $47,446,504, after full allowance for reduced assessments.

During the year we apportioned the assessments on 321 lots of ground, dividing the same into 2,263 separate assessments.

Moved by certain complaints alleging a general policy of over-assessment on the part of the Appeal Tax Court, the *Baltimore Evening News*, after an unbiased and independent investigation, made the following editorial statement on March 30, 1911:

"The result seems completely to relieve the Appeal Tax Court of any charge of over-zealousness or hardheartedness. The fact that in 323 cases of sales, chosen at haphazard

without first looking at the assessments, there were only six in which the properties were taxed for more than they brought, is a remarkable testimonial to the justice with which assessments have been made."

APPEALS TO STATE BOARD.

Notwithstanding previous disappointments in our efforts to secure just assessments of banks and Maryland corporations by the State Tax Commissioner, we deemed it our duty again this year to recommend appeals by the city to the State Board of Appeals in the cases of ten banks and financial institutions. The aggregate gross assessments of the shares of these corporations were $5,516,720 less than the fair market value. The under assessments ranged in individual cases from $201,700 to $962,800. All of these appeals were heard by the Board at a single session, and in all of the cases the assessments complained of were promptly affirmed.

We renew our suggestion that in cases of this kind an appeal should be allowed to a court of competent jurisdiction which has the power to compel the attendance of witnesses and the production of books and papers, and whose findings and rulings will be a matter of record and a definite guide to future action. The inquiry is essentially a judicial one, for the proper determination of which a permanent tribunal with adequate training and powers is needed.

CITY STOCK ASSESSMENTS.

The law makes it the duty of the Appeal Tax Court to assess city stock for the purpose of State taxation. For many years this stock has been valued at par. The material decline in the market value and the large increases in the amount of taxable stock outstanding rendered it proper in our judgment to revise the valuations. Accordingly the assessments returned to the State Comptroller for 1911 were not placed at a uniform figure for all issues but reflected for

the different classes of issues the varying values based on interest rate, maturity period, availability for deduction in the hands of corporations, and liability to State tax directly to the holder.

As a corollary to this step we urged upon the State Tax Commissioner the propriety of making a corresponding revision in the assessment of city stock for the purposes of deduction or credit under the terms of the so-called Gans Act of 1908. The Tax Commissioner acceded to the extent of fixing a uniform valuation of 95 on all classes of city stock without regard to the actual difference in selling value between the several classes of stock. The reduction of even 5 points however means a saving of 5 per cent. in the loss occasioned to the city under the Gans Act.

MISCELLANEOUS.

We have inaugurated the policy of sending to manufacturers blank applications for plant exemptions. Heretofore many manufacturers overlooked the formality of applying in time, thereby, under the strict statutory requirement, losing the benefit of the exemption. The number of missed exemptions this year is trifling. In comparing the plant exemption figures for 1912 with the figures for previous years, this change of policy should not be overlooked.

Respectfully submitted,

OSCAR LESER, *President*,
A. B. CUNNINGHAM,
JOHN GILL, JR.,
Judges.

TABLE A.

STATEMENT OF NEW ASSESSMENTS AND ABATEMENTS MADE FOR THE YEARS 1909 AND 1910 AND ENTERED BETWEEN JANUARY 1, 1911, AND DECEMBER 31, 1911, AND FOR THE YEAR 1911 ENTERED BETWEEN OCTOBER 1, 1910, AND DECEMBER 31, 1911.

YEAR.	Real.	Personal, Full Rate.	Securities, 30c. Rate.
1909 To new assessments (city, full rate)	$8,195	$120,991	$424,119
1909 To new assessments (suburban, $1.30 rate)	560,527	.....	.....
1909 To new assessments (rural, 65 cent rate)	972,857	.....	.....
1909 By abatements (city, full rate)	1,383,527	806,012	796,192
1909 By abatements (suburban, $1.30 rate)	2,870	.....	.....
1909 By abatements (rural, 65 cent rate)	8,502	.....	.....
1910 To new assessments (city, full rate)	17,285	367,262	1,112,236
1910 To new assessments (suburban, $1.30 rate)	560,527	.....	.....
1910 To new assessments (rural, 66⅔ cent rate)	969,937	.....	.....
1910 By abatements (city, full rate)	1,440,662	1,185,263	1,144,865
1910 By abatements (suburban, $1.30 rate)	51,887	.....	.....
1910 By abatements (rural, 66⅔ cent rate)	27,653	.....	.....
1911 To new assessments (city, full rate)	4,211,316	1,785,376	19,141,041
1911 To new assessments (suburban $1.30 rate)	643,423	.....	.....
1911 To new assessments (rural, 66 cent rate)	1,117,636	.....	.....

TABLE A—Concluded.

Year.	Real.	Personal, Full Rate.	Securities, 30c. Rate.
1911 By abatements (city, full rate)	4,405,994	4,385,543	12,772,098
1911 By abatements (suburban, $1.30 rate)	90,015	.....	.....
1911 By abatements (rural, 66 cent rate)	177,356	.....	.....

TABLE B.

Number of Licenses for Building Permits Issued from January 1, 1911, to December 31, 1911.

Assessment Districts.	New Buildings.	Additional Improvements.	Total.
First	548	25	573
Second	49	23	72
Third	6	24	30
Fourth	19	32	51
Fifth	10	15	25
Sixth	356	42	398
Seventh	10	15	25
Eighth	15	33	48
Ninth	25	57	82
Tenth	4	27	31
Eleventh	11	12	23
Twelfth	18	34	52
Thirteenth	3	14	17
Fourteenth	7	10	17
Fifteenth	11	16	27
Sixteenth	2	20	22
Seventeenth	25	21	46
Eighteenth	53	26	79
Nineteenth	202	35	237
Twentieth	5	20	25
Twenty-first	1,105	60	1,165
Twenty-second	560	47	607
Totals	3,044	608	3,652

TABLE C.

NEW BUILDINGS, ADDITIONAL IMPROVEMENTS AND ASSESSED VALUATIONS, JANUARY 1 1911, TO DECEMBER 31, 1911.
FULL CITY RATE.

ASSESSMENT DISTRICTS.	Number of New Improvements Assessed.	Assessed Values.	Number of Additional Improvements Assessed.	Assessed Values.
First	419	$535,700	18	$4,225
Second	16	93,300	18	5,950
Third	1	2,250	25	6,650
Fourth	10	65,100	25	5,700
Fifth	5	19,500	8	2,800
Sixth	435	612,450	30	8,100
Seventh	6	7,100	17	3,950
Eighth	31	750,550	15	23,300
Ninth	38	4,370,550	18	22,150
Tenth	18	165,650	8	7,100
Eleventh	21	8,476	6	1,300
Twelfth	30	676,550	8	3,200
Thirteenth	5	63,000	2	400
Fourteenth	10	23,200	10	4,500
Fifteenth	10	171,100	5	3,150
Sixteenth	6	33,300	5	775
Seventeenth	32	51,450	9	7,575
Eighteenth	55	64,700	20	4,690
Nineteenth	147	225,633	10	2,900
Twentieth	21	29,400	6	1,675
Twenty-first	28	101,250	12	4,905
Twenty-second ...	28	314,600	15	6,100
Totals.....	1,372	$8,384,809	290	$131,095
SUBURBAN RATE.				
Twenty-first	282	$664,550	7	$3,150
Twenty-second ...	64	303,450	5	3,600
Totals.....	346	$968,000	12	$6,750
RURAL RATE				
Twenty-first	603	$1,171,650	10	$3,800
Twenty-second	143	206,500	7	5,500
Totals.....	746	$1,378,150	17	$9,300

TABLE D.

NEW AND INCREASED ASSESSMENTS ON PERSONAL PROPERTY AND SECURITIES IN THE FISCAL YEAR ENDING DECEMBER 31, 1911, FOR THE BASIS OF 1912 (EXCLUSIVE OF ASSESSMENTS CARRIED FORWARD FROM THE BASIS OF 1911 INTO THE BASIS OF 1912.)

ASSESSMENT DISTRICTS.	Personal (Full Rate).		Amount of Securities Assessed or Reassessed.
	Number of Assessments.	Amount Assessed.	
First	35	$183,680	$119,922
Second	30	252,015	.....
Third	18	10,700	13,889
Fourth	20	53,785	.....
Fifth	30	35,825	36,725
Sixth	75	75,250	15,295
Seventh	70	66,600	2,000
Eighth	241	503,878	1,793,699
Ninth	605	2,138,102	62,508,655
Tenth	61	250,455	43,490
Eleventh	140	122,690	1,645,299
Twelfth	151	204,200	1,354,973
Thirteenth	45	352,117	74,223
Fourteenth	28	32,000	.....
Fifteenth	35	161,910	.....
Sixteenth	15	78,625	.....
Seventeenth	55	948,475	.....
Eighteenth	40	195,611	.....
Nineteenth	58	32,390	192,132
Twentieth	42	28,125	11,800
Twenty-first	158	144,380	92,369
Twenty-second	135	103,470	381,771
Totals	2,087	$5,974,283	$68,286,242

Shares of national banks and Maryland incorporated companies taxable in Baltimore for 1911 (full rate)	$50,800,485
Credit by city stock deductions for 1911 (full rate)	10,631,159
Net amount charged to City Collector	$40,169,326

Securities of non-stock corporations for 1911 (30 cent rate),	$1,007,671
Savings bank deposits for 1911 (18¾ cent rate)	88,099,719

TABLE E.

PETITIONS FOR ABATEMENT OF REAL ESTATE ASSESSMENTS FOR 1912, FILED DURING THE YEAR 1911.

ASSESSMENT DISTRICTS.	Number of Appeals.	Number Dismissed.	Number Granted.	Amount Abated.
First	40	28	12	$4,920
Second	20	12	8	4,900
Third	20	7	13	10,150
Fourth	19	6	13	41,069
Fifth	21	7	14	7,451
Sixth	27	17	10	9,250
Seventh	41	14	27	4,825
Eighth	20	2	18	19,039
Ninth	30	10	20	25,742
Tenth	4	1	3	1,400
Eleventh	11	10	1	400
Twelfth	65	59	6	5,674
Thirteenth	26	2	24	13,658
Fourteenth	9	4	5	1,900
Fifteenth	11	3	8	4,340
Sixteenth	5	.....	5	1,450
Seventeenth	16	5	11	4,600
Eighteenth	15	6	9	800
Nineteenth	54	21	33	8,700
Twentieth	8	7	1	100
Twenty-first	98	25	73	28,322
Twenty-second	44	15	29	19,215
Totals	604	261	343	$217,905

TABLE F.

NUMBER AND ASSESSED VALUE OF MANUFACTURING PLANTS EXEMPTED FROM CITY TAXES FOR 1911.

	Number.	Assessed Value.
Firms, individuals and foreign corporations....	328	$4,665,927
Incorporated companies (Maryland charters)..	196	5,163,385
Totals.....	524	$9,829,312

TABLE G.

APPROPRIATIONS AND DISBURSEMENTS.

SALARY ACCOUNT.

Appropriation	$58,300 00
Salaries paid.....	58,119 23
Balance.....	$180 77

EXPENSE ACCOUNT.

Appropriation	$2,223 00
Expenditures	2,188 69
Balance.....	$34 31

TABLE H.

STATEMENT OF NOTICES, ASSESSMENTS, TRANSFERS, ABATEMENTS AND INVESTIGATIONS FROM JANUARY 1, TO DECEMBER 31, 1911.

Abatements and assessments entered under orders of Court....		48,531
Notices in the matter of hearings by the Court:		
On real estate assessments (other than new improvements).....	16,031	
On new improvements.....	900	
On personal property.....	2,097	
Schedules delivered on personal property.....	2,483	
		21,511
Investigations made by assessors and passed upon by the Court:		
On applications for abatement or reduction of assessments on real estate (Table E).....	604	
On plant exemption applications.....	524	
On applications for abatements or reduction of assessments on personal property.....	2,200	
		3,328
Number of transfers of real estate.....	7,560	
Number of building licenses issued.....	3,652	
Number of notices for reclassification of Annex properties.....	1,685	
		12,897
Total number of transactions for the year.....		86,267

REAL ASSESSMENTS MADE BY SPECIAL ASSESSORS DURING 1911 FOR 1912.

Full city rate.....	$47,997,638
Suburban rate ($1.26).....	381,122
Rural rate (65 cents).....	2,194,022
Total.....	$50,572,782
Former assessment.....	47,089,330
Increase.....	$3,483,452

TABLE I.

NEW BUILDINGS APPRAISED AND EXEMPTED FOR 1912.

ASSESSMENT DISTRICTS.	Schools.	Engine Houses.	Libraries.	Parks.	Churches.	Hospitals.	Educational.	Benevolent.
First								
Second		$13,900			$450	$200		
Third								
Fourth	$101,000							
Fifth								
Sixth					14,600	221,500		
Seventh					15,500			
Eighth					33,000			
Ninth			$3,400		1,800			
Tenth								
Eleventh							$2,200	
Twelfth						7,500		
Thirteenth								
Fourteenth								
Fifteenth						2,700		
Sixteenth								
Seventeenth			16,500					
Eighteenth					1,500			
Nineteenth						1,000		
Twentieth								
Twenty-first	54,300				63,500			
Twenty-second			20,000		30,000			
Totals	$155,300	$13,900	$39,900		$160,350	$232,900	$2,200	

ANNUAL REPORT

OF THE

CITY REGISTER

AND THE

COMMISSIONERS OF FINANCE

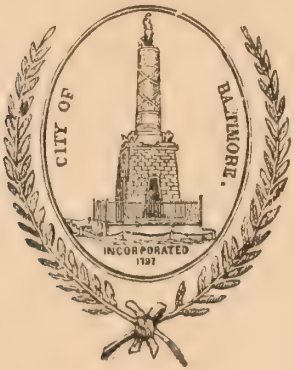
OF BALTIMORE

TO THE

MEMBERS OF THE FIRST AND SECOND BRANCHES
OF THE CITY COUNCIL

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911



BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

REPORT OF

RICHARD GWINN

CITY REGISTER

CITY REGISTER'S DEPARTMENT

CITY REGISTER

RICHARD GWINN

DEPUTY REGISTER

ISAAC L. NEWMAN

CHIEF CLERK

WM. T. GATCHELL

STOCK CLERK and CLERK TO BOARD OF AWARDS

J. GEORGE ROEDER, JR.

ASSISTANT CLERKS

CHAS. H. MOORE
LOUIS McSHANE
WALTER R. LYON
M. FRANK FITZPATRICK

CITY REGISTER'S REPORT.

BALTIMORE, December 31, 1911.

To the Honorable Members of the
First and Second Branches of the City Council.

GENTLEMEN: Complying with the provisions of the Baltimore City Code of 1893 (Article 11, Section 24), I have the honor to lay before you the following report:

The receipts into the Treasury from all sources during the current fiscal year, ended December 31, 1911, as detailed in Statement "C" of this report, were.....	$16,732,845 57
To which add the cash balance of December 31, 1910..	1,849,378 26
Making the total amount to be accounted for.....	$18,582,223 83
The total disbursements for the year, as detailed in Statement "C," were.....	16,749,259 24
Leaving a cash balance on hand December 31, 1911, of..	$1,832,964 59

FUNDED DEBT ACCOUNT.

Net credit balance December 31, 1910.....	$767,388 31	
Net proceeds from sales of stock during the year.....	2,972,958 46	
Credits from other sources.....	26,668 59	
		$3,767,015 36
Expenditures during the year as shown by Statement "C".		2,804,166 93
Net credit balance December 31, 1911.....		$962,848 43

FUNDED DEBT.

The Funded Debt December 31, 1911, is....	$64,595,382 95	
The Funded Debt December 31, 1910, was..	61,647,482 95	
Showing an increase during the year.....		$2,947,900 00
Thus explained:		
Conduit 4% 1958 Loan issued.....	$230,000 00	
New Sewerage Improvement 3½% 1980 Loan issued.....	1,102,900 00	
Burnt District Improvement 4% 1961 Loan issued	15,000 00	
General Fund Bond ¼% 1955 Loan issued.	300,000 00	
Jones Falls Improvement 4% 1961 Loan issued	100,000 00	
School House 4% 1961 Loan issued.....	500,000 00	
Dock Improvement 4% 1961 Loan issued..	200,000 00	
Paving 4% 1951 Loan issued.....	500,000 00	
		2,947,900 00

CITY FUNDS.

The detail statements which accompany this report, together with the report of the Commissioners of Finance, show fully the transactions of this Department during the past year. I will, however, make some reference to the method of safeguarding the city's funds and the system of paying accounts, which I found in operation when I qualified as City Register.

I have made a careful study of both of these features for the reason that the former had been more or less recently installed, and probably not long enough to fully test its effectiveness by operation; and the latter for the reason that it was unsatisfactory, both to this Department and to those having accounts to collect. Furthermore, under the existing mode of auditing bills and issuing warrants on this Department for their payment there existed danger of inadvertently paying a bill that had already been paid. While there was much to commend in the plan in operation, additional checks were at once inaugurated for the prevention and detection of possible errors in accounting for the large sums of money received and disbursed by the Department. Subsequently the whole situation was considered and the changes that seemed to be called for were outlined, and submitted to the Mayor, the Comptroller and the heads of the various departments.

The joint consideration by the Comptroller and myself has resulted in a plan distinctly different in many respects from the one I found in operation, and, in substance, consists of the adoption of a uniform order throughout the various departments of a prescribed form to be used in all expenditures, and which will provide evidence that the order has been received and filled by the party on whom it was drawn; evi-

dence that the material or work has been received by or completed for the city, and that the expenditure was approved by the proper authority. Duplicate bills will accompany this order when they are sent to a department for payment, but they will not be receipted in advance, as has heretofore been the custom.

The requirement that the original order accompany the bill is designed to prevent the erroneous payment of a bill the second time—instances of which have occurred in the past. It would be practically impossible to inadvertently duplicate an original order of the character proposed.

When bills are audited and approved, a warrant will be drawn by the Comptroller, specifying the bill or bills which it is intended to pay. The warrant will embody a form of draft upon the city depositary, which, when properly signed, will take the place of the present bank check. When the warrant has been audited and signed by the Comptroller, and the accompanying draft has been signed by the Mayor, it will be issued to the City Register for completion and record, after which the combined warrant and check will be sent to the vendor, as is the usual commercial custom, and will be collected by him as an ordinary check.

The endorsement by the payee will be made a receipt and release for the payment of the account set forth in the warrant, and when the cancelled warrant-check is returned by the bank, it will be a part of a complete record of the transaction in one paper embracing the signatures of all parties concerned. Thus the present system of issuing postal notices that bills are ready for payment will be discontinued and much annoyance to this Department and disappointment to those collecting accounts will be avoided; they will no longer be required to appear at the Register's office to make their collections, as the warrant-checks, in settlement, are to be sent to them direct by mail.

By these changes the public will not only be relieved of annoyance, but their business with the Departments should be concluded with greater dispatch.

The statements herewith submitted for your information are as follows:

"A"—A statement of the funded debt and of the productive and unproductive assets of the city.

"B"—A statement of the surplus existing December 31, 1911.

"C"—A statement in detail of the receipts and expenditures for the fiscal year, with the appropriations for the various accounts.

"D"—A statement showing the condition of the fund held by the City Register, in trust, for property sold for taxes.

"E"—A statement of the fund held in trust by the City Register for unclaimed damages for opening streets.

Respectfully submitted,

RICHARD GWINN,
City Register.

STATEMENTS

STATEMENT A—FUNDED DEBT.

December 31, 1911.

Name of Loan.	Rate.	Authority for Issue.	When Redeemable.	Amount.
Water	5 %	Ord. No. 65, 1877	On and after July 1, 1916	$5,000,000 00
Funding	5 %	" 93, 1878	At pleasure after July 1, 1916	1,000,000 00
McDonogh Ext'n.	5 %	" 157, 1890	Sept. 1, 1916	280,000 00
Harford Run	4 %	" 86, 1879	At pleasure after Jan. 1, 1920	250,000 00
Patterson Pk Ext'n	4 %	" 120, 1882	Oct. 1, 1920	200,000 00
Paving	4 %	" 140, 1880	At pleasure after Nov. 1, 1920	500,000 00
Water	4 %	" 91, 1882	At pleasure after Nov. 1, 1922	500,000 00
W. M. R. R.	4 %	" 71, 1882	July 1, 1925	684,000 00
Annex Impvt.	4 %	" 216, 1905	June 1, 1954	2,000,000 00
Pub. Pk. Impvt.	4 %	" 228, 1905	May 1, 1955	1,000,000 00
Water	4 %	" 82, 1886	At pleasure after Nov. 1, 1926	1,000,000 00
New Eng. House.	4 %	" 239, 1907	June 1, 1957	1,000,000 00
New Schl. House.	4 %	" 240, 1907	June 1, 1957	1,000,000 00
Conduit	4 %	" 142, 1908	Dec. 1, 1958	830,000 00
Burnt Dist Impvt.	4 %	" 391, 1909	April 1, 1960	565,000 00
Jones Falls Impvt.	4 %	" 555, 1910	Mar. 1, 1961	100,000 00
School House	4 %	" 556, 1910	Mar. 1, 1961	500,000 00
Dock Impvt.	4 %	" 557, 1910	Mar. 1, 1961	200,000 00
Paving	4 %	" 661, 1911	Aug. 1, 1951	500,000 00
Conduit	3½%	" 120, 1896	Jan. 1, 1922	1,000,000 00
Conduit	3½%	" 87, 1902	Jan. 1, 1928	1,000,000 00
Internal Impvt.	3½%	" 98, 1888	July 1, 1928	4,850,000 00
Consolidated	3½%	" 58, 1890	At pleasure after July 1, 1930	5,000,000 00
Funding	3½%	" 112, 1896	July 1, 1936	1,453,300 00
Public Impvt.	3½%	" 100, 1892	Jan. 1, 1940	6,000,000 00
Refunding	3½%	" 32½, 1898	Jan. 1, 1940	4,300,000 00
Water	3½%	" 86, 1902	At pleasure after Jan. 1, 1943	1,000,000 00
Four Million	3½%	" 137, 1894	Mar. 1, 1945	4,000,000 00
		Amount carried forward		$45,712,300 00

STATEMENT A—FUNDED DEBT.—*Continued.*

Name of Loan.	Rate.	Authority for Issue.	When Redeemable.	Amount.
		Amount brought forward.....		$45,712,300 00
W. M. R. R. Refg.	3½%	Ord. No. 18, 1898 " 32, 1900	Mar. 1, 1950	875,000 00
W. M. R. R. Refg.	3½%	" 18, 1898 " 32, 1900	Jan. 1, 1952	1,000,000 00
Burnt Dist. Impvt.	3½%	" 71, 1904	June 1, 1954	6,000,000 00
New Sew. Impvt.	3½%	" 227, 1905	Oct. 1, 1980	9,000,000 00
W. M. R. R.....	3½%	" 11, 1886	Jan. 1, 1927	1,704,000 00
Gen. Fund Bonds.	4%	" 564, 1910	Mar. 1, 1955	300,000 00
Stock due in 1860	6 %	Unredeemed,	no int. allow'd	482 00
Water Stock due in 1875.....	6 %	"	" "	270 00
Consolidat'd Stock due in 1890....	6 %	"	" "	427 50
Five Million Stock due in 1890....	6 %	"	" "	1,903 45
W. M. R. R. Stock due in 1902....	6 %	"	" "	1,000 00
		Total Funded Debt.....		$64,595,382 95

Total Funded Debt December 31, 1911			$64,595,382 95
Amount of Floating Debt:			
Promissory note of the Mayor and City Council issued in favor of the Baltimore Sanitary Contracting Company, dated January 2, 1908, at four years, bearing interest at 5% per annum, as provided in the Ordinance of Estimates for the year 1908	$55,500 00		
Accrued interest to December 31, 1911	2,775 00		
		$58,275 00	
Also two promissory notes of the Mayor and City Council in favor of the Maryland School for the Blind, each for $75,000 and dated June 16, 1909, payable, respectively, January 15, 1912, and January 15, 1913, or sooner if desired, bearing interest at 3½%, as provided in Ordinance No. 296 (1909)	$150,000 00		
Accrued interest to December 31, 1911	233 33		
		150,233 33	
			208,508 33
			$64,803,891 28

PRODUCTIVE ASSETS.

Against which the city holds the following productive assets:		
Sinking Funds, face value	$23,112,460 98	
Water Works Stock outstanding	9,500,000 00	
Electrical Conduit System Stock outstanding	2,830,000 00	
New Docks and Piers Stock outstanding	5,215,000 00	
550 shares Baltimore and Reisterstown Turnpike Stock	2,062 50	
		40,659,523 48
Excess of Funded and Floating Debt over productive assets		$24,144,367 80

UNPRODUCTIVE ASSETS.

10,000 shares Valley R. R. Co. of Virginia Stock	.....	
625 shares Baltimore & York Turnpike Stock	.....	
New Court House, cost	$2,750,000 00	
City Hall	2,250,000 00	
Market and school houses, jail, police stations, almshouses, quarantine stations public parks and squares valued at	15,000,000 00	
	$20,000,000 00	
Of the total Funded Debt amounting to		$64,595,382 95
Interest is provided as follows:		
On Water 5% 1916 Loan, paid from water rents	$5,000,000 00	
On Water 4% 1922 Loan, paid from water rents	500,000 00	
On Water 4% 1926 Loan, paid from Water rents	1,000,000 00	
On Water 3½% 1943 Loan, paid from water rents	1,000,000 00	
On Four Million 3½% 1905 Loan (issued for extension of water supply), paid from water rents	2,000,000 00	
On Patterson Park 4% 1920 Loan, paid from Park Board receipts	200,000 00	
On Four Million 3½% 1945 Loan, issued for Park purposes, paid from Park Board receipts	1,000,000 00	
On W. M. R. R. 3½% 1952 Loan, paid by Commissioners of Finance from special sinking fund	1,000,000 00	
On W. M. R. R. 4% 1925 Loan, paid by Commissioners of Finance from special sinking fund	684,000 00	
On W. M. R. R. 3¼% 1927 Loan, paid by Commissioners of Finance from special sinking fund	1,704,000 00	
Amounts carried forward	$14,088,000 00	$64,595,382 95

Amounts brought forward.....	$14,088,000 00	$64,595,382 95
On W. M. R. R. 3½% Loan, paid by Commissioners of Finance from special sinking fund	875,000 00	
On Public Park Improvements, 4% 1955 Loan, paid from Park Board receipts..	1,000,000 00	
Overdue stock, no interest allowed.....	4,082 95	
		15,967,082 95
Leaving the amount on which interest is provided for by taxation at.....		$48,628,300 00

Viz: $1,280,000 00 interest at 5%.
7,445,000 00 interest at 4%.
39,603,300 00 interest at 3½%.
300,000 00 interest at ¼%..

$48,628,300 00

STATEMENT B.

The following statement shows the surplus existing December 31, 1911.

DR.

Cash on deposit	$1,832,964 59	
Tax sales	7,591 38	
Private paving and inspection	11,484 95	
Postage stamp account	151 52	
City car tickets	252 50	
Opening streets, balance	60,376 56	
Burnt District Improvement 1960 Loan	114,504 93	
Dock 1961 Loan	549,029 13	
New Sewerage 1980 Loan	1,166,812 28	
Paving 1951 Loan	500,000 00	
School 1961 Loan	1,101,576 26	
Water 1958 Loan	612,314 47	
Engine House 1957 Loan	30,000 00	
		$5,987,058 57

CR.

Park Board	$1,435 48	
Additional building, City Jail	2,536 50	
Boiler, No. 1 Bath House	1,800 00	
Bay View, power house and machinery	19,133 58	
Addition to School No. 2	3,103 45	
Lot and building, School No. 51	10,800 60	
Building, School No. 86	6,689 56	
Lot and building, School No. 70	112,255 96	
Lot and building, Polytechnic Institute	331,743 55	
Building, School No. 59	16,467 16	
Lot and building, School No. 6	131,402 54	
Lot and building, School No. 22	144,349 91	
Lot and building, School No. 27	105,000 00	
Addition, School No. 83	59,947 00	
Addition, School No. 99	39,947 00	
Lot and building, School No. 111	120,000 00	
Addition, School No. 63	32,035 51	
Addition, School No. 64	21,452 94	
Lot and building, School No. 61	75,000 00	
Addition, School No. 67	49,950 00	
Amounts carried forward	$1,285,950 80	$5,987,058 57

Amounts brought forward	$1,285,950 80	$5,987,058 57
Addition, School No. 34	25,000 00	
Lot and building for stable	44,621 82	
Additional room and improvements, City Hall	5,323 04	
Lot and building, Engine House No. 35	22,293 35	
Lot and building, Engine House No. 41	22,802 50	
Bulkhead, Old Marine Hospital	5,802 08	
Equipment, No. 2 Hose Company	5,062 52	
Equipment, Engine Company No. 40	7,325 75	
Pipe Line System Pumping Station	33,739 99	
Paving private alleys	7,318 32	
Mosher street paving, Madison to McCulloh	3,494 62	
Underpinning buildings, Howard, Eutaw and Hamburg streets	405 24	
Sundry streets	26,413 31	
Unpaid interest on Stock Debt	6,705 23	
Bath house comfort station, Northeast Baltimore	23,433 00	
Municipal Tuberculosis Commission	726 51	
Equipment for new schools	11,039 49	
Free text-books	676 34	
Commercial course	8,170 71	
Salaries, Police Commissioners	4,813 60	
Expenses, Visitors to the City Jail	1,002 31	
Opening streets	48,846 73	
Parental School	7,887 74	
Lot near Sycamore and Third avenues	6,000 00	
Lot, School No. 27	18,420 31	
Lot, School No. 68	2,394 35	
Lot, School No. 99	5,095 13	
Unclaimed damages for opening streets	454 17	
Mural decoration	500 00	
New improvements, Bay View Hospital	3,793 51	
Intestate estates	9,931 05	
Railroad siding and tramway	1,500 00	
Paving Canton street	2,934 79	
Additional building, Sydenham Hospital	30,000 00	
Widening Harford road	24,327 83	
Public Athletic League, Broadway Hall	1,000 00	
Infectious disease hospital	3,855 00	
Amounts carried forward	$1,719,061 14	$5,987,058 57

Amounts brought forward	$1,719,061 14	$5,987,058 57
Port street paving	80 54	
Conduit 1958 Loan	53,121 66	
Engine House 1957 Loan	108,835 84	
School 1957 Loan	151,223 61	
Dock 1961 Loan	49,029 13	
Thirty-ninth street and Fortieth street main, Water Board	1,803 42	
New pump boiler, Mt. Royal Pumping Station.	199,687 75	
Seventh street main, Water Board	3,823 55	
Construction, new reservoir	6,190 03	
Acquiring streets, etc., Annex	42,836 43	
Pratt street bridge, property, construction and paving	105,710 08	
Recreation pier, end of Broadway	396,733 74	
Property, pier south side harbor	152,295 39	
Expense, constructing sewerage system	970,039 29	
Extension, park system	122,358 76	
Jones Falls highway	99,320 03	
Paving streets, Paving Commission	496,060 78	
Paving 1951 Loan	496,060 78	
School 1961 Loan	363,767 14	
Surplus	458,019 48	
		5,987,058 57

STATEMENT C.

NAMES OF ACCOUNTS.	Appropriations	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
INSPECTOR OF BUILDINGS.					
Salaries	$60,540 00	$58,710 95			
Repairs to City Property	206,650 00	201,037 73	$2,010 00		$2,010 00
Emptying Cesspools	300 00	200 00			
Livery and Transportation	1,800 00	1,500 00			1,507 54
Permits for Sheds		557 80	1,507 54		
Incidentals	400 00	331 30			
Completion of Western High School	28,455 00	28,455 00			
*Machinery, Bay View Power House	125,000 00	124,443 59			
*Addition to City Jail	10,030 86	20,887 10			
New Elevators	7,244 00	7,244 00			
Boiler, No. 1 Bath House	1,800 00				
Bay View, Mangles and Porches, Nurses' House	5,000 00	5,000 00			
Vault for Health Department	2,000 00	2,000 00			
*Completion of Engine House No. 36	1,894 42	1,894 42			
*Completion of Engine House No. 38	2,931 93	2,758 59			
*Lot and Building, School No. 4	203 30	1,513 80			
*New Hospital, Bay View		25,071 13			
Furnishing New Hospital and Improving Grounds	3,500 00	3,500 00			
*Additional Land, Tuberculosis Hospital	16,500 00	20,267 69	3,767 69		3,767 69

Removal of Dangerous Walls			1,499 17		1,499 17
Railroad Siding and Tramway, Bay View Asylum	1,500 00				
Polytechnic Institute	80,468 75	80,468 75			
*School No. 27		11,579 69			
*School No. 99		53 00			
*School No. 86		3,869 97			
*School No. 2		25,200 83			
*School No. 6		285 00			
*School No. 70		22,655 51			
*School No. 51		14,361 63			
*School No. 76		10,601 94			
	$556,218 26	$674,539 42	$8,784 40		$8,784 40
City Collector.					
Salaries	$36,600 00	$34,454 71			
Expenses	6,191 00	6,191 00			
Tax Bailiffs		49,996 95	$49,996 95		$49,996 95
	$42,791 00	$90,642 66	$49,996 95		$49,996 95
Appeal Tax Court.					
Salaries	$58,300 00	$58,119 23			
Expenses	2,223 00	2,188 69			
	$60,523 00	$60,307 92			

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
COMMISSIONERS FOR OPENING STS.					
Salaries	$10,187 50	$9,737 50			
Expenses	500 00	347 11			
	$10,687 50	$10,084 61			
HARBOR BOARD.					
Salaries	$6,086 67	$6,084 01			
*Dredging Harbor	40,657 00	42,621 36	$48 10		$48 10
*Iceboats	20,030 00	25,101 27	5,075 00		5,075 00
*Repairs to Wharves	9,560 00	11,722 01	1,557 73		1,557 73
*Light Street Bridge	7,019 00	7,082 04	63 04		63 04
Removal of Ashes	1,100 00	806 54			
Removal of Floating Matter	1,935 00	1,930 81			
Incidentals	500 00	496 09			
Bulkhead, Old Marine Hospital	18,000 00	12,197 92			
Rentals from Docks and Piers			131,891 73		131,891 73
	$104,887 67	$108,042 05	$138,635 60		$138,635 60

SUPT. OF LAMPS AND LIGHTING.					
Salaries	$15,324 00	$15,282 33			
Gas Lighting and Maintenance	155,206 80	154,790 96	$1,706 56		$1,706 56
Electric Lights and Maintenance	188,662 50	188,647 53			
Naphtha Lamps and Maintenance	12,100 99	12,097 28			
Incidentals	350 00	346 73			
	$371,644 29	$371,164 83	$1,706 56		$1,706 56
BALTIMORE CITY JAIL.					
Salaries	$36,650 00	$36,396 50	$10 78		$10 78
Expenses	28,500 00	27,497 69	12,756 87		12,756 87
	$65,150 00	$63,894 19	$12,767 65		$12,767 65
TOPOGRAPHICAL SURVEY.					
Salaries	$12,580 00	$12,463 14			
Expenses	1,750 00	1,701 70	$1,917 73		$1,917 73
	$14,330 00	$14,164 84	$1,917 73		$1,917 73

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
COMMISSIONER OF STREET CLEANING.					
Salaries	$26,720 00	$25,996 98			
Street Carts and Men	135,720 00	132,744 03	$18 00		$18 00
Sweepers and Scrapers	171,912 00	170,546 39	1 00		1 00
Sweeping Machines and Sprinklers	60,284 00	60,243 02			
Cleaning Sewers and Inlets	38,685 00	38,548 97			
Tools, Repairs, etc	8,085 00	7,948 59			
Incidentals	2,720 00	2,702 97			
Removal of Garbage	62,500 00	62,500 00			
Laying Dust and Preserving Roads	10,000 00	8,211 33			
Collection of Garbage and Ashes	210,000 00	209,865 60			
Sale of Street Dirt, etc			2,959 98		2,959 98
Removal and Disposition of Non-perishable Waste	25,000 00	24,739 55			
Emergency Fund	10,000 00	9,611 08			
Destruction of Weeds and Grass	2,000 00	1,317 33			
Baltimore Sanitary Contracting Co. Fourth Installment	61,050 00	61,050 00			
Sites and Building Stables	59,000 00	14,378 18			
	$883,676 00	$830,404 02	$2,978 98		$2,978 98

ELECTRICAL COMMISSION.					
Operating and Maintenance of Conduits	$8,646 00	$8,635 92			
Rentals from Electrical Subways			$113,024 57		$113,024 57
	$8,646 00	$8,635 92	$113,024 57		$113,024 57
SUPERVISORS OF ELECTIONS.					
Salaries	$15,000 00	$14,753 17			
Expenses	3,939 00	2,640 88	$8,831 25		$8,831 25
Registration, Spring	21,691 00	19,727 34			
Primary Election, Spring	32,180 00	27,869 29			
Election, Spring	30,280 00	28,382 82			
Registration, Fall	46,315 00	45,278 96			
Primary Election, Fall	32,180 00	31,735 14			
Election, Fall	32,190 00	31,927 44			
	$213,745 00	$202,315 04	$8,831 25		$8,831 25
CITY REGISTER.					
Salaries	$13,950 00	$13,937 47			
Expenses	1,165 00	1,051 52			
Ground Rents, City Property	45,000 00	43,586 21			
State Tax on City Loans	63,000 00	63,350 55	$790 63		$790 63
Enoch Pratt Free Library Fund	4,258 00	4,258 00			
Advertising Laws	2,629 38	2,629 38			
City Seal			53 21		53 21
Interest on Stock Debt	2,356,930 50	2,339,764 72	1,831,345 93	$1,168,766 42	662,579 51
Commissioners of Finance, Expenses	3,000 00	2,957 61			
	$2,489,932 88	$2,462,535 46	$1,832,189 77	$1,168,766 42	$663,423 35

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger.		Receipts from Collector of Taxes.	Receipts from Other Sources.
		Dr.	Cr.		
Law Department.					
Salaries	$26,145 82	$25,824 33			
Expenses	6,700 00	6,700 00			
Judgments and Suits	18,000 00	12,473 80	$740 28		$740 28
	$50,845 82	$44,998 13	$740 28		$740 28
Board of Police Commissioners.					
Salaries	$1,179,542 00	$1,174,728 40	$1,136,304 35	$1,136,304 35	
Expenses	83,775 00	77,617 30			
*Pensions	15,574 89	23,078 32			
	$1,278,891 89	$1,275,424 02	$1,136,304 35	$1,136,304 35	
Board of Police Examiners.					
Salaries	$4,800 00	$4,757 42			
Expenses	912 00	911 59			
	$5,712 00	$5,669 01			

CITY COMPTROLLER.					
Salaries	$14,700 00	$14,565 48			
Expenses	1,200 00	1,162 70	$50 00		$50 00
Assistant Market Masters	6,666 65	6,666 65			
Hose for Various Markets	843 45	843 45			
Postage Stamp Account		7,396 96	7,317 20		7,317 20
Car Tickets		13,750 00	13,573 90		13,573 90
Insurance on City Property	17,000 00	16,399 28	24 95		24 95
Market Cleaners	8,980 00	8,961 77			
Inspectors of Weights and Measures	8,600 00	8,472 60	81 60		81 60
	$57,990 10	$78,218 89	$21,047 65		$21,047 65
BOARD OF FIRE COMMISSIONERS.					
Salaries	$723,360 00	$720,305 36			
Expenses	185,305 84	185,305 84	$2,997 83		$2,997 83
Pensions, Firemen's Widows	2,025 00	2,025 00			
Two New Hose Companies, Salaries	10,975 00				
Two New Hose Companies, Equipment	20,000 00	14,937 48			
Engine Company No. 40, Salaries	10,075 00	8,554 83			
Hose Company No. 40, Equipment	8,300 00	974 25			
*Engine Company No. 38, Equipment		10,390 00			
*Steel Fireboat	15,500 00	35,891 65			
Pipe Line	150,000 00	130,826 20			
	$1,125,540 84	$1,109,210 61	$2,997 83		$2,997 83

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
Board of Park Commissioners.					
Park Board			$523,535 99		$523,535 99
Parks and Squares, Salaries	$217,738 50	$201,893 82			
Parks and Squares, Expenses	268,484 47	268,484 21			
Office, Salaries	5,000 00	4,853 46			
Office, Expenses	2,000 00	1,997 12			
Purchase of Property, South Side Baker Street	23,500 00	23,500 00			
New Improvements	110,167 07	110,154 44			
	$626,890 04	$610,793 05	$523,535 99		$523,535 99
Free Bath Commission.					
Salaries	$38,024 00	$35,168 89			
Expenses	26,086 00	25,575 01	$17,012 56		$17,012 56
Bath House Comfort Station		833 24			
	$64,110 00	$61,577 14	$17,012 56		$17,012 56

Liquor License Commission.					
Salaries	$14,100 00	$13,891 67	.....	.....	.....
Expenses	3,300 00	2,795 00	.....	.....	.....
	$17,400 00	$16,686 67	.....	.....	.....
Mayoralty.					
Salaries	$12,250 00	$12,119 82	.....	.....	.....
*Expenses	2,848 00	2,851 50	$0 05	.....	$0 05
Auditing City Departments	8,500 00	8,500 00	.....	.....	.....
	$23,598 00	$23,471 32	$0 05	.....	$0 05
City Librarian.					
Salaries	$4,516 67	$4,516 67	.....	.....	.....
Expenses	22,715 00	21,504 02	$165 00	.....	$165 00
	$27,231 67	$26,020 69	$165 00	.....	$165 00

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
WATER BOARD.					
Water Board Receipts		$1,874 17	$1,096,418 27		$1,096,418 27
Salaries, Collector Water Rents and Licenses	$30,124 35	30,124 17			
Expenses, Collector Water Rents and Licenses	2,055 00	1,751 94			
Salaries, Water Engineer	94,180 00	93,559 94			
Expenses, Water Engineer	481,500 00	481,500 00			
Meters		1,190 42	3,755 70		3,755 70
Interest on Water Loans	415,000 00	415,000 00			
Sinking Funds for Water Loans	16,050 00	15,813 59			
New Equipment for Street Fountains	600 00	600 00			
Changing Distribution System, Hamburg Street Crossing, B. & O. R. R.	2,000 00	2,000 00			
10-inch Main, Lawrence and Clement Streets	2,500 00	2,500 00			
6-inch Main, Garrison Avenue	2,700 00	2,700 00			
*16-inch Main, Thirty-ninth and Fortieth Streets	7,500 00	19,985 58			
*30-inch Main, Seventh Street		1,468 29			
	$1,054,209 35	$1,070,068 10	$1,100,173 97		$1,100,173 97

DEPARTMENT LEGISLATIVE REFERENCE.					
Salaries	$3,080 00	$3,080 00			
Expenses	550 00	493 82			
	$3,630 00	$3,573 82			
SINKING FUNDS					
General	$57,718 50	$58,647 26	$58,647 26	$58,647 26	
Water 1916 Loan	65,964 00	67,026 12	67,026 12	67,026 12	
Public Improvement 1940 Loan	65,964 00	67,026 12	67,026 12	67,026 12	
Internal Improvement 1928 Loan	98,946 00	100,539 18	100,539 18	100,539 18	
Funding 1936 Loan	32,982 00	33,513 04	33,513 04	33,513 04	
Conduit 1922 Loan	32,982 00	33,513 04	33,513 04	33,513 04	
Refunding 1940 Loan	65,964 00	67,026 12	67,026 12	67,026 12	
Conduit 1928 Loan	32,982 00	33,513 04	33,513 04	33,513 04	
Water 1922 Loan	16,491 00	16,756 51	16,756 51	16,756 51	
Water 1926 Loan	32,982 00	33,513 04	33,513 04	33,513 04	
Burnt District 1954 Loan	65,964 00	67,026 12	67,026 12	67,026 12	
Four Million 1945 Loan	16,491 00	16,756 51	16,756 51	16,756 51	
Annex 1954 Loan, Sewerage 1980 Loan, Engine House 1957 Loan, School House 1957 Loan, Water 1958 Loan, Conduit 1958 Loan, Burnt District 1960 Loan, School 1961 Loan, Wharves and Docks 1961 Loan, Jones Falls Improvement 1961 Loan, Parks 1955 Loan and Water 1943 Loan	184,350 00	159,500 00	162,328 73	162,328 73	
	$769,780 50	$754,356 10	$757,184 83	$757,184 83	

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
DIARY CITY COUNCIL.					
Salaries	$47,750 00	$47,666 61			
Expenses	11,335 00	11,335 00			
	$59,085 00	$59,001 61			
COURTS.					
Salaries, Court Bailiffs, Stenographers, etc.	$65,304 16	$58,539 79	$62 50		$62 50
Criminal Court, Expenses	92,190 36	91,810 76			
Baltimore City Court, Expenses	12,571 25	10,620 41			
Court of Common Pleas, Expenses	9,893 70	6,607 00			
Supreme Court, Expenses	14,662 65	9,544 20			
Circuit Court, Expenses	500 00	232 75			
Circuit Court No. 2 Expenses	767 50	495 45			
Orphans' Court, Salaries	10,016 00	10,016 00			
Orphans' Court, Expenses	100 00	70 50			
Juvenile Court, Salaries	11,500 00	11,458 18			
Juvenile Court, Expenses	1,000 00	1,000 00			
Supreme Bench, Salaries	5,500 00	5,416 63			
Supreme Bench, Expenses	3,130 00	1,544 85			
Magistrates	19,900 00	19,643 55			
Trust Department, Supreme Bench	200 00	125 45			
	$247,235 62	$227,125 52	$62 50		$62 50

Salaries	$44,230 00	$42,469 97			
Repairs, Roads and Streets	267,650 00	267,779 69	$129 69		$129 69
Repairs to Sewers	10,000 00	9,291 02	3 00		3 00
Maintenance of Bridges and Culverts	16,000 00	14,321 87	10 00		10 00
Paving and Repaving Cross Streets	45,000 00	44,982 85	166 58		166 58
Grade Establishments	6,000 00	4,611 77	637 49		637 49
Footway Crossings	5,000 00	2,107 66			
Maintenance of Property Yard	2,800 00	2,792 31			
Improvements in and Additions to Drainage System	24,000 00	24,037 00	37 00		37 00
Private Paving and Inspection		89,365 14	83,949 95		83,949 95
Sales of Old Material		165 05	3,249 74		3,249 74
Livery and Transportation	2,500 00	2,356 00			
Incidentals	1,000 00	822 17			
Advertising	300 00	282 48			
Emergency Fund	20,000 00	19,975 97			
Underpinning Buildings, Eutaw St.	5,500 00	5,094 76			
Lowering Eutaw Street Drain	2,400 00	2,112 63			
*Falls Road Sewer		2,725 73			
Paving Private Footways		308 83	654 11	$654 11	
*Franklin Road Bridge		109 35			
*Sewer, University Parkway		831 05			
*Howard Street Sewer		4,198 28			
*Edmondson Avenue Bridge		3,243 09			
*Lafayette Avenue Sewer		1,575 99			
Grading and Paving Streets	171,395 00				
Construction of Sewers and Drains	9,331 05				
*Base for Key Monument		54 99			
	$633,016 05	$545,615 65	$88,837 56	$654 11	$88,183 45

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger.		Receipts from Collector of Taxes.	Receipts from Other Sources.
		Dr.	Cr.		
COMMISSIONER OF HEALTH.					
Salaries	$112,560 84	$112,136 72	$10 00	.....	$10 00
Expenses	30,550 00	27,716 67	902 60	.....	902 60
Quarantine, Salaries	14,485 00	13,977 57	5 00	.....	5 00
Quarantine, Expenses	8,550 00	8,119 63	12,263 92	.....	12,263 92
Sydenham Hospital, Salaries	10,420 00	9,743 86	2 42	.....	2 42
Sydenham Hospital, Expenses	16,800 00	16,652 60	343 05	.....	343 05
Additional Ward Building, Sydenham Hospital	30,000 00	.....	.....	.....	.....
Abatement of Nuisances	.....	1,612 91	689 52	.....	689 52
	$223,365 84	$189,959 96	$14,216 51	.....	$14,216 51

BOARD OF SCHOOL COMMISSIONERS.					
Office Salaries	$9,200 00	$9,195 48			
Office Expenses	1,500 00	1,500 00			
Day School Salaries	1,503,113 00	1,476,226 06	$1,621,721 04	$1,156,193 71	$465,527 33
Day School Expenses	162,350 00	162,431 04	18,226 89		18,226 89
Night School Salaries	21,321 00	20,757 10			
Night School Expenses	4,500 00	3,453 12			
Parental School	10,000 00	5,830 77			
New Equipment	30,200 00	29,445 23			
Teachers' Retirement Fund	3,000 00	3,000 00			
Free Text Books		56,601 94	57,287 28		57,287 28
Intestate Estates		4,365 51	9,326 77		9,326 77
Commercial Course		7,356 24	10,000 00		10,000 00
	$1,745,184 00	$1,780,163 49	$1,716,561 98	$1,156,193 71	$560,368 27

SUPT. OF PUBLIC BUILDINGS.					
City Hall, Salaries	$16,723 33	$16,710 83			
City Hall, Expenses	11,100 00	11,100 00	$224 35		$224 35
City Hall Annex, Salaries	5,820 00	5,717 50			
City Hall Annex, Expenses	8,200 00	8,200 00			
Court House, Salaries	33,840 00	33,807 49			
Court House, Expenses	27,600 00	26,516 15			
	$103,283 33	$102 051 97	$224 35		$224 35

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
SUPERVISORS CITY CHARITIES.					
Salaries	$8,860 00	$8,729 14	.....	.....	.....
Expenses	1,500 00	1,492 71	.....	.....	.....
Bay View, Salaries	53,590 00	51,177 13	$36 61	.....	$36 61
Bay View, Expenses	137,054 25	137,055 94	619 01	.....	619 01
Care of Insane	146,500 00	152,446 28	.....	.....	.....
City Patients in Hospitals	70,875 00	69,968 00	46 00	.....	46 00
Destitute and Neglected Children	27,000 00	19,131 88	56 20	.....	56 20
Dispensary Service	9,000 00	8,510 03	.....	.....	.....
Temporary Care of Homeless Men	1,000 00	1,000 00	.....	.....	.....
Transportation of the Poor to Their Homes	1,000 00	467 17	72 13	.....	72 13
Board from Insane Patients	....	376 67	17,713 65	.....	17,713 65
	$456,379 25	$450,354 95	$18,543 60	.....	$18,543 60

REFORMATORIES.

Maryland School for Boys, Maintenance	$8,400 00	$6,152 66				
Maryland School for Boys, Manual Training	7,000 00	5,127 22				
St. Mary's Industrial School, Maintenance	48,000 00	48,000 00				
Industrial Home for Colored Girls, Maintenance	6,000 00	5,762 96				
Industrial Home for Colored Girls, New Improvements	2,500 00	2,500 00				
House of Good Shepherd, Maintenance	5,183 00	5,183 00				
House of Good Shepherd for Colored Girls, Maintenance	4,560 00	4,540 00				
Maryland Industrial School for Girls, Maintenance	7,800 00	5,976 49				
Maryland Industrial School for Girls, Improvements	2,000 00	1,999 78				
House of Reformation for Colored Boys, Maintenance	24,000 00	24,000 00				
National Junior Republic, Maintenance	4,200 00	1,783 99				
Home for Fallen Women, Maintenance	1,080 00	1,080 00				
School for Colored Orphan Children, Maintenance	1,200 00	1 200 00				
	$121,923 00	$113,306 10				

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
GENERAL EXPENDITURES.					
W. H. War. Pension	$260 00	$260 00			
Contingent Fund.....$50,000 00					
Less Transfers..... 26 034 10	23,965 90	1,809 13			
Coroners	9,083 33	9,083 33			
Board of Estimates	1,229 36	1,229 36			
Board of Public Improvements	600 00	500 00			
Transportation to the House of Correction	500 00	372 82			
Muncipal Telephone Exchange	21,892 00	22,466 07	$3,181 12		$3,181 12
Enoch Pratt Free Library, Equipment	25 000 00	25,000 00			
Public Service Commission	14,291 55	13,924 87	327 21		327 21
Care of Habitual Drunkards	4,215 00	4,207 50			
Sales of City Property		285 57	775 00		775 00
Interest on City Deposits			84,665 74		84,665 74
Liquor License (State Apportionment to City)			1,125,832 85		1,125,832 85
Turnpike Dividends			202 57		202 57
*Tax Sales		380 30			
Maryland Institute	12,000 00	12,000 00			
Veteran Volunteer Firemen's Ass'n	1,000 00	1,000 00			
Children's Playground Association	14,000 00	14,000 00			

Bar Library Association	2,500 00	2,500 00			
Agnes Lindsay, Pension	450 00	450 00			
Lottie C. Curry, Pension	300 00	300 00			
Eva Wagner, Pension	400 00	400 00			
Mary A. McGraw, Pension	400 00	400 00			
Catherine Freiman, Pension	450 00	450 00			
Joanna Braden, Pension	400 00	400 00			
Christiana A. Pugh, Pension	900 00	900 00			
Removed Cases		1,940 37	1,689 93		1,689 93
Municipal Games, Patterson Park	500 00	496 30			
Opening Streets		10,316 64			
City Direct Tax			1,535,317 37	1,535,317 37	
Suburban Tax			153,888 50	153,888 50	
Arrears of Taxes			1,000,657 32	1,000,657 32	
Rural Tax			181,899 88	181,899 88	
City Poor			667,119 36	667,119 36	
Annex			1,190 32	1,190 32	
Certain Expenses			214,699 22	214,699 22	
Benefit Assessment Fund		15 90	5,289 38	5,289 38	
Interest			93,626 42	93,626 42	
Assessment of Securities			494,674 11	494,674 11	
Income from Mortgages			267 88	267 88	
Tax on Savings Bank Deposits			160,990 52	160,990 52	
Unclaimed Damages, Opening Streets			30 00		30 00
City Surveyor's Expenses	240 00	240 00			
Rentals from City Property		260 30	10,548 44		10,548 44
Wharfage		9 453 53	46,962 59		46,962 59
Public Athletic League, Broadway Hall	1,000 00				
Public Athletic League, Cross Street Hall	500 00	497 81			
*Hampden-Woodberry Neighborhood House	10,000 00	13,000 00			
Amounts carried forward	$146,077 14	$148,539 80	$5,783,835 73	$4,509,620 28	$1,274,215 45

*Paid out of unexpended balances from 1909.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
Amounts brought forward.....	$146,077 14	$148,539 80	$5,783,835 73	$4,509,620 28	$1,274,215 45
GENERAL EXPENDITURES—*Con.*					
Illumination for Convention of Order of Moose.....	$2,000 00	$1,965 00	.....	.....	.....
Illumination of Druid Hill Avenue.	450 00	450 00	.....	.....	.....
Municipal Tuberculosis Commission.	1,100 00	373 49	.....	.....	.....
Special Medical Examination.....	500 00	425 00	.....	.....	.....
Public Athletic League.....	3,000 00	3,000 00	.....	.....	.....
Motor Vehicles, Licenses and Fines.	.....	.....	$11,241 98	.....	$11,241 98
Public Franchises and Minor Privileges	.....	179 97	24,730 49	.....	24,730 49
Conscience Fund.....	.....	.....	102 60	.....	102 60
Infectious Disease Hospital.....	.....	.....	3,855 00	.....	3,855 00
Belair Market.....	.....	56 05	11,041 90	.....	11,041 90
Canton Market.....	.....	27 40	493 80	.....	493 80
Centre Market.....	.....	3,118 37	14,863 66	.....	14,863 66
Cross Street Market.....	.....	68 32	4,297 20	.....	4,297 20
Fells Point Market.....	.....	50 58	8,290 60	.....	8,290 60
Hanover Market.....	.....	77 00	2,472 50	.....	2,472 50
Hollins Market.....	.....	70 20	3,702 00	.....	3,702 00
Lafayette Market.....	.....	33 00	3,226 65	.....	3,226 65
Lexington Market.....	.....	330 91	17,209 40	.....	17,209 40
Northeast Market.....	.....	24 05	2,989 40	.....	2,989 40

Richmond Market		58 30	3,896 55		3,896 55
Cross Street Hall		309 08	216 50		216 50
Broadway Hall		56 69			
Current Markets			445 75		445 75
Fines		140 00	4,724 30		4,724 30
General Licenses	2,100 00	1,105 04	88,972 08		88,972 08
Dog Licenses and Fines		14,902 44	27,120 25		27,120 25
Telephone Conduits			32,297 55		32,297 55
Unpaid Interest on City Stock			6,705 23		6,705 23
Sale of Baltimore Sanitary Co			59,327 50		59,327 50
Municipal Factory Site Commission	3,000 00	2,691 33			
	$158,227 14	$178,052 92	$6,116,058 62	$4,509,620 28	$1,006,438 34

ENGINE HOUSE 1957 LOAN.

Engine Company No. 41		$6,937 50			
Engine Company No. 36		2,208 58			
Engine Company No. 35		7,706 65			
Pipe Line		62,184 86			
		$79,007 59			

JONES FALLS IMPT. 1961 LOAN.

General Account		$11,210 00	$111,210 00		$111,210 00
Commission on City Plan	$500,000 00	9,679 97			
	$500,000 00	$20,889 97	$111,210 00		$111,210 00

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
PAVING 1951 LOAN.					
General Account		$2,246 46	$502,246 46		$502,246 46
Paving Commission	$500,000 00	3,939 22			
	$500,000 00	$6,185 68	$502,246 46		$502,246 46
ANNEX IMPROVEMENT 1954 LOAN.					
General Account		$613 15			
Annex Loan Expense		37,931 84	$14,287 90	$13,798 35	$489 55
		$38,544 99	$14,287 90	$13,798 35	$489 55
BURNT DISTRICT W. M. FUND.					
Memorial to General Hood		$10,000 00			
		$10,000 00			

GENERAL FUND BONDS.					
General Account			$300,000 00		$300,000 00
			$300,000 00		$300,000 00
SCHOOL HOUSE 1957 LOAN.					
School No. 22		$51,520 09	$20 00		$20 00
Polytechnic Institute		33,839 13			
School No. 59		132 91			
School No. 51		80,163 89			
		$165,656 02	$20 00		$20 00
SCHOOL HOUSE 1961 LOAN.					
General Account		$5,757 00	$505,757 00		$505,757 00
School No. 22	$130,000 00				
Polytechnic Institute	300,000 00				
School No. 27	105,000 00				
School No. 83	60,000 00	53 00			
School No. 37	16,000 00	43 00			
School No. 99	40,000 00				
Schools Nos. 111 and 101	120,000 00				
School No. 63	40,000 00	7,064 49			
School No. 64	50,000 00	28,547 06			
School No. 61	75,000 00				
School No. 67	50,000 00	50 00			

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
School House 1961 Loan.—*Con.*					
School No. 34	25 000 00				
School No. 86	7,237 00	517 44			
School No. 59	14,658 00				
School No. 2	31,205 72	28,102 27			
School No. 60	34,052 94	34,052 94			
School No. 6	86,041 27				
School No. 70	21,050 87				
School No. 51	47,963 32	37,162 66			
	$1,253,809 12	$141,979 86	$505,757 00		$505,757 00
Burnt District 1960 Loan.					
General Account		$150 00	$15,150 00		$15,150 00
Wharves and Docks, Salaries	$19,068 00	12,971 68			
*Wharves and Docks, Construction.	112,000 00	216,977 74	157 88		157 88
Pratt Street Bridge	185,000 00	79,453 12	163 20		163 20
	$316,068 00	$309,552 54	$15,471 08		$15,471 08

DOCK IMPROVEMENT 1961 LOAN.					
General Account		$2,200 00	$202,200 00		$202,200 00
Acquisition of Property for Construction of a Pier	$400,000 00	3,266 26			
Acquisition of Property, South Side Harbor	300,000 00	148,535 07	830 46		830 46
	$700,000 00	$154,001 33	$203,030 46		$203,030 46
WATER 1958 LOAN.					
High Service Reservoir Gate		$1,224 17			
30-inch Main, Seventh Street	$49,250 00	36,426 45			
Pumps and Boilers, Mt. Royal Pumping Station	200,000 00	312 25			
10-inch Main, Harford Road	7,837 00	7,837 00			
*High Service Reservior, Construct'n	19,000 00	41,175 18	$558 94		$558 94
Purchase of Land and Buildings	2,000,000 00	115,977 69			
	$2,267,087 00	$202,952 74	$558 94		$558 94
CONDUIT 1958 LOAN.					
General Account		$3,495 00	$233,495 00		$233,495 00
Electrical Commission, Salaries	$18,330 00	15,335 04			
*Electrical Commission, Construction	211,500 00	217,677 03	6,515 47		6,515 47
	$229,830 00	$236,507 07	$240,010 47		$240,010 47

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	FACE OF LEDGER. Dr.	FACE OF LEDGER. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
NEW SEWERAGE IMPT. 1980 LOAN.					
General Account			$1,102,900 00		$1,102,900 00
Administration Salaries	$26,900 00	$26,537 61			
Construction Salaries	131,050 00	126,425 36			
Special Expense	27,362 00	27,237 65			
Construction Expense	1,540,000 00	1,245,782 65	4,134 74		4,134 74
	$1,725,312 00	$1,425,983 30	$1,107,034 74		$1,107,034 74
FOUR MILLION 1945 LOAN.					
*Public Parks		$1,430 04			
		$1,430 04			
PUBLIC PARK IMPT. 1955 LOAN.					
*Northeast Section		$11,475 80			
		$11,475 80			

PAVING STREETS					
*Rose Street		$3,168 27			
*Fremont Street		19,328 81			
*Canton Street		65 21	$3,000 00		$3,000 00
Paving Private Alleys	$5,000 00	2,459 00	4,777 32	$4,776 45	87
*Carey Street		12,349 43			
Lawrence Street	5,000 00	3,670 68			
Mosher Street	3,500 00	5 38			
*Hollins Street, Garrison Avenue to Catherine Street	4,600 00	6,015 00	1,415 00		1,415 00
Park Terrace	8,000 00	6,049 33			
*Patuxent Street		1,257 42			
*Edmondson Avenue		23,287 93			
*Mulberry Street		257 28			
*Welcome Alley		1,545 76			
*Pleasant Street		1,327 04			
*Concord Street		3,941 92			
*Brunt Street		1,994 39			
*Carrollton Avenue		3,494 58			
*Oliver Street		8,692 69			
*Barre Street		6,328 72			
*West Street		5 39			
*Lombard Street, Hopkins Place to Hanover Street		7,242 21			
*High Street		3,501 32			
*Foster Alley		1,260 18			
*Aisquith Street		8,095 85			
Luzerne Street	2,500 00	2,500 00			
*Eutaw Street		9,678 91			
*Howard Street		7,885 62			

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
PAVING STREETS.—*Continued.*					
*Hamburg Street, Howard Street to Plum Alley		1,197 10			
Harford Road Widening	32,350 00	8,022 17			
*Duval, Roslyn and Piedmont Avenues		2,500 00	2,500 00		2,500 00
*Hamburg Street, China Alley to Eutaw Street		1,429 89			
*O'Donnell Street		13,613 93			
*Twenty-fourth Street		6,148 18			
*Fulton Avenue		19,524 75			
	$60,950 00	$197,844 34	$11,692 32	$4,776 45	$6,915 87
OPENING STREETS.					
Thirty-third Street...Ord. 251—1907		$75 30			
Thirtieth Street.....Ord. 117—1907			$1,770 19	$1,770 19	
Garrett Avenue.....Ord. 179—1908			246 00	246 00	
Kennedy Avenue....Ord. 195—1908	$649 29				
Twenty-second Street Ord. 196—1908	20,000 00	22,945 33	4,724 57	3,874 57	$850 00
Rose Street.....Ord. 241—1909		3,754 17	2,400 00	2,400 00	

Glover Street.....Ord. 16—1911	.....	107 65	.....	.....	.....
Callow Avenue.....	734 51	.....	.....	.....	.....
*Homestead Street...Ord. 335—1909	.....	80 74	.....	.....	.....
Hudson Alley.....Ord. 266—1909	695 25	713 37	600 00	600 00	.....
Smallwood Street...Ord. 270—1909	7,422 71	8,405 51	1,099 25	349 25	750 00
*Baltimore Street, West, Ord. 272—1909	.....	496 50	.....	.....	.....
Homestead Street...Ord. 336—1909	.....	44 61	.....	.....	.....
Huntingdon Avenue.Ord. 271—1909	996 22	.....	4 00	4 00	.....
Friendsbury Place...Ord. 349—1909	.....	.....	197 50	197 50	.....
Seventh Street.....Ord. 305—1909	17,391 27	44,162 28	.....	.....	.....
*Dukeland Street.....Ord. 286—1909	.....	880 52	1,086 00	1,086 00	.....
*Oak Street.....Ord. 386—1909	.....	43 34	.....	.....	.....
*Saratoga Street.....	.....	59 15	5,486 00	5,486 00	.....
*Twenty-sixth street.....	.....	419 77	.....	.....	.....
*Keyworth Avenue.....	.....	1,852 00	805 00	805 00	.....
*Twenty-seventh Street, Ord. 536—1910	.....	208 79	.....	.....	.....
*Thirty-fourth Street.....	.....	49 76	2,306 35	2,306 35	.....
*Pratt Street.....Ord. 572—1910	.....	192 50	6,209 30	5,601 80	607 50
*Merrymans Lane (Closing) Ord. 543—1910	.....	60 84	.....	.....	.....
*Windsor Mill Lane (Closing).....	.....	335 00	.....	.....	.....
*Remington Avenue (Opening).....	.....	333 75	.....	.....	.....
*Baker Street.....	.....	1,375 00	.....	.....	.....
Fortieth Street.....	19,083 26	23,944 30	7,494 20	7,369 20	125 00
Bentalou Street.....	9,582 13	.....	.....	.....	.....
Thirty-ninth Street.....	5 000 00	5,000 00	.....	.....	.....
*Ashburton Street.....	.....	1,313 05	.....	.....	.....
*Belair Road.....	.....	1,146 26	.....	.....	.....
*Montebello Avenue..Ord. 289—1907	.....	34 20	2,596 75	2,596 75	.....

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Continued.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
OPENING STREETS—*Continued.*					
*Gwynn's Falls Parkway		$2,910 22			
*Waterfront Street		182 70			
*Bonner Road		404 10			
*Taylor Street		1,996 89			
*Thames Street (Widening)		60 97			
*Henrietta Street (Closing)		28 47			
*Park Hill Avenue (Opening)		385 10			
*Wyman Avenue (Opening)		212 59			
*Oak Street (Opening) Ord. 534—1910		61 34			
*Creamer Alley (Opening) Ord. 26—1911		237 45			
*Little Greene Street		27 23			
*Frederick Road (Widening)		22 58			
*Calvert Street (Opening)		150 18			
*Alameda Street.....Ord. 227—1908		103 78			
	$81,464 64	$124,817 29	$37,025 11	$34,692 61	$2,332 50

*Paid out of unexpended balances of 1910.

SUMMARY.					
Inspector of Buildings	$556,218 26	$674,539 42	$8,784 40		$8,784 40
City Collector	42,791 00	90,642 66	49,996 95		49,996 95
Appeal Tax Court	60,523 00	60,307 92			
Commissioners for Opening Streets	10,687 50	10,084 61			
Harbor Board	104,887 67	108,042 05	138,635 60		138,635 60
Supt. of Lamps and Lighting	371,644 29	371,164 83	1,706 56		1,706 56
Baltimore City Jail	65,150 00	63,894 19	12,767 65		12,767 65
Commissioner of Street Cleaning	883,676 00	830,404 02	2,978 98		2,978 98
Electrical Commission	8,646 00	8,635 92	113,024 57		113,024 57
Topographical Survey	14,330 00	14,164 84	1,917 73		1,917 73
Supervisors of Elections	213,745 00	202,315 04	8,831 25		8,831 25
City Register	2,489,932 88	2,462,535 46	1,832,189 77	$1,168,766 42	663,423 35
Law Department	50,845 82	44,998 13	740 28		740 28
Board of Police Commissioners	1,278,891 89	1,275,424 02	1,136,304 35	1,136,304 35	
Board of Police Examiners	5,712 00	5,669 01			
City Comptroller	57,990 10	78,218 89	21,047 65		21,047 65
Board of Fire Commissioners	1,125,540 84	1,109,210 61	2,997 83		2,997 83
Board of Park Commissioners	626,890 04	610,793 05	523,535 99		523,535 99
Free Bath Commission	64,110 00	61,577 14	17,012 56		17,012 56
Liquor License Commission	17,400 00	16,686 67			
Mayoralty	23,598 00	23,471 32	05		05
City Librarian	27,231 67	26,020 69	165 00		165 00
Water Board	1,054,209 35	1,070,068 10	1,100,173 97		1,100,173 97
Department of Legislative Reference	3,630 00	3,573 82			
Sinking Funds	769,780 50	754,356 10	757,184 83	757,184 83	
Diary City Council	59,085 00	59,001 61			
Courts	247,235 62	227,125 52	62 50		62 50
City Engineer	633,016 05	545,615 65	88,837 56	654 11	88,183 45
Commissioner of Health	223,365 84	189,959 96	14,216 51		14,216 51
Board of School Commissioners	1,745,184 00	1,780,163 49	1,716,561 98	1,156,193 71	560,368 27
Superintendent of Public Buildings	103,283 33	102,051 97	224 35		224 35
Supervisors of City Charities	456,379 25	450,354 95	18,543 60		18,543 60

*Paid out of unexpended balances of 1910.

STATEMENT C.—*Concluded.*

NAMES OF ACCOUNTS.	Appropriations.	Face of Ledger. Dr.	Face of Ledger. Cr.	Receipts from Collector of Taxes.	Receipts from Other Sources.
SUMMARY—*Continued.*					
Reformatories	$121,923 00	$113,306 10			
General Expenditures	158,227 14	178,052 92	$6,116,058 62	$4,509,620 28	$1,606,438 34
Engine House 1957 Loan		79,007 59			
Jones Falls Improvement 1961 Loan	500,000 00	20,889 97	111,210 00		111,210 00
Paving 1951 Loan	500,000 00	6,185 68	502,246 46		502,246 46
Annex Improvement 1954 Loan		38,544 99	14,287 90	13,798 35	489 55
Burnt District W. M. Fund		10,000 00			
General Fund Bonds			300,000 00		300,000 00
School House 1957 Loan		165,656 02	20 00		20 00
School House 1961 Loan	1,253,809 12	141,979 86	505,757 00		505,757 00
Burnt District 1960 Loan	316,068 00	309,552 54	15,471 08		15,471 08
Dock Improvement 1961 Loan	700,000 00	154,001 33	203,030 46		203,030 46
Water 1958 Loan	2,267,087 00	202,952 74	558 94		558 94
Conduit 1958 Loan	229,830 00	236,507 07	240,010 47		240,010 47
New Sewerage 1980 Loan	1,725,312 00	1,425,983 30	1,107,034 74		1,107,034 74
Four Million 1945 Loan		1,430 04			
Public Park Improvement		11,475 80			
Paving Streets	60,950 00	197,844 34	11,692 32	4,776 45	6,915 87
Opening Streets	81,464 64	124,817 29	37,025 11	34,692 61	2,332 50
	$21,310,281 80	$16,749,259 24	$16,732,845 57	$8,781,991 11	$7,950,854 46
Cash Balance January 1, 1911			1,849,378 26		
Cash Balance December 30, 1911		1,832,964 59			
	$21,310,281 80	$18,582,223 83	$18,582,223 83	$8,781,991 11	$7,950,854 46

STATEMENT D.

Fund held in trust by the City Register for property sold for taxes, December 30, 1911.

Water 5% 1916 Loan		$1,500 00
Consolidated 3½% 1930 Loan	$9,700 00	
Refunding 3½% 1940 Loan	6,600 00	
Public Improvement 3½% 1940 Loan	5,300 00	
New Sewerage Improvement 3½% 1980 Loan	7,600 00	
Burnt District Improvement 3½% 1954 Loan	1,500 00	
W. M. R. R. 3¼% 1927 Loan	600 00	
		31,300 00
		$32,800 00
Cash		53 62
		$32,853 62

STATEMENT E.

Fund held in Trust by the City Register for Unclaimed Damages for Opening Streets, December 31, 1908.

Funding 5% 1916 Loan (Account Preston Street)	$600 00

REPORT OF THE

COMMISSIONERS OF FINANCE

OF BALTIMORE CITY

FOR THE YEAR 1911

BOARD OF COMMISSIONERS OF FINANCE

PRESIDENT

JOHN M. LITTIG.

JAMES H. PRESTON, *Mayor,*

RICHARD GWINN, *City Register,*

JAMES F. THRIFT, *Comptroller,*

HARRY FAHNESTOCK.

CLERK

ISAAC L. NEWMAN, *Deputy City Register.*

REPORT

DEPARTMENT OF FINANCE,
SUB-DEPARTMENT, COMMISSIONERS OF FINANCE,
CITY HALL,

BALTIMORE, December 31, 1911.

To the Honorable the Members of the First and Second Branches of the City Council of Baltimore.

GENTLEMEN—In compliance with Section 16, Article 47, of the Baltimore City Code of 1893, the Commissioners of Finance have the honor to submit herewith their report showing in detail their transactions during the current year, by the following statements:

1. Receipts and payments on account of the various sinking funds (page 18).
2. The purchases of stock for the sinking funds (page 31).
3. The condition of the various sinking funds (page 40).
4. The condition of the Enoch Pratt Free Library Fund (page 54).
5. The condition of the Horwitz Benevolent Fund (page 54).
6. The condition of the Frederick Raine Fund (page 55).
7. A schedule of real estate from which ground rents are derived (page 55).
8. Cash balances of sinking funds (page 58).
9. A statement of the funded debt (page 59).
10. A statement of the issues of Baltimore City Stock held by the Commissioners of Finance in the sinking and special funds (facing page 60).

The matters embraced in the foregoing are exhibited under their respective heads in detailed form in the appendix to this report.

1.—Receipts and Payments.

The receipts were as follows:

Cash to the credit of Sinking and Special Funds, December 31, 1910		$23,434 97
Interest on stock and investments		808,262 27
Interest on deposits (daily bank balances)		2,554 99
Ground rents and rentals from real estate		32,522 66
Water Board, 1½% on gross receipts for 1910, for Water 1943 Loan Sinking Fund		15,813 59
Park Board, 5% on gross receipts "Park Tax" 1910, for Public Park Sinking Fund No. 2		25,734 87
Park Board, annual charge against receipts for Public Park Improvement 1955 Loan Sinking Fund		8,800 00
Premium on the sales of following loans:		
Burnt District Improvement 4% 1960 Loan in 1911	$150 00	
Conduit 4% 1958 Loan in 1911	3,495 00	
School House 4% 1961 Loan in 1911	5,757 00	
Dock Improvement 4% 1961 Loan in 1911	2,200 00	
Jones' Falls Improvement 4% 1961 Loan in 1911	1,100 00	
Paving 4% 1951 Loan in 1911	2,246 46	
Annex Improvement 4% 1954 Loan in 1908	613 15	
		15,561 61
Mayor and City Council to supply the annual deficiency in income of Enoch Pratt Free Library Fund		4,258 00
City Collector, by tax levy, for the various Sinking Funds		754,356 10
Commissioners of Finance, proceeds of sale of $13,700 Public Improvement 3½% 1940 Loan, purchased from W. M. R. R. Sinking Fund for the Public Improvement 1940 Loan Sinking Fund		12,741 00
Baltimore and Frederick Turnpike Company, in part liquidation of 137 shares of its capital stock		493 20
		$1,704,533 26
Amount carried forward		$1,704,533 26

Amount brought forward		$1,704,533 26

The payments were as follows:

Baltimore City Stock purchased for the various Sinking Funds.	$1,460,721 88		
Special purchase from the W. M. R. R. Fund for the Public Improvement 1940 Loan Sinking Fund	12,741 00		
		$1,473,462 88	
One year's interest on W. M. R. R. 3¼% 1927 Loan		55,380 00	
One year's interest on W. M. R. R. 3½% 1950 Loan		30,625 00	
One year's interest on W. M. R. R. 3½% 1952 Loan		35,000 00	
One year's interest on W. M. R. R. 4% 1925 Loan		27,360 00	
Enoch Pratt Free Library, annuity		50,000 00	
Maryland Institute, account of Frederick Raine Fund		7 00	
Board of School Commissioners, account of Frederick Raine Fund		7 00	
J. Barry Mahool, Mayor, first distribution of income from Horwitz Benevolent Fund		523 68	
			1,672,365 56
Balance to credit of Sinking and Special Funds, December 31, 1911			$32,167 70

2.—Purchases of Stock.

This statement is submitted in obedience to Section 13, Article 47, Baltimore City Code (1893), and exhibits in detail the purchases of stock during the current year amounting to $1,478,265.70, at a cost of $1,473,462.88.

3.—The Sinking Funds.

This statement shows the condition of the various sinking funds, at their face value, set apart for the redemption of the public debt. They are held in trust by the Commissioners of Finance, and amount to $23,112,460.98.

4.—Enoch Pratt Free Library Fund.

This statement shows the condition of the Enoch Pratt Free Library Fund, under the control of the Commissioners of Finance, who were required "to invest the interest upon the investments in the sinking fund, and the interest upon the interest, as the same shall be received, in the public debt of the City of Baltimore, until the annual income from said investment shall reach the sum of fifty thousand dollars." In the meantime the Mayor and City Council were required to pay the annuity by tax levy. In 1892 taxation for this purpose ceased, for the reason that the income from investments contained in the fund yielded $50,341.

By the redemption of the five and six per cent. loans in the fund, from 1893 to the year 1902, and the reinvestment in stock bearing three and one-half per cent. interest on the amounts received therefrom, the income has been reduced to $45,742; consequently, it is necessary for the Mayor and City Council to supply, by taxation, the annual deficiency of $4,258.

5.—The Horwitz Benevolent Fund.

This statement shows the condition of the Horwitz Benevolent Fund, under the management of the Commissioners of Finance, who, on December 28, 1888, under authority of Resolution No. 7, of 1888, accepted from the executors of Orville Horwitz, deceased, the sum of ten thousand ($10,000) dollars which is held in trust as directed under the following provision of the last will and testament of the said deceased:

"Article 7. I give and bequeath unto the Mayor and City Council of Baltimore the sum of ten thousand dollars to be invested in permanent securities in the City of Baltimore, and as soon as the said sum by investments and re-investments of the rents, issues and profits thereof, shall have been increased to the sum of twenty thousand dollars, then I will and desire that the said rents, issues and profits shall be annually distributed under the direction of the Mayor of said corporation, in aid of the support of twelve poor families of said City of Baltimore, to be selected by said Mayor without distinction of race, color, religion or politics in such proportions and sums as to the said Mayor may seem just; the said Mayor to report annually in his message to the City Council of said city the mode in which the said annual income has been distributed and the amounts in which and persons to whom the same has been paid and the reasons which have induced him to make such distribution. It is hoped that this bequest will be faithfully administered, and the money will not be wasted amongst political idlers or bummers, as they are called, but will be so applied as to relieve the actual

distress of worthy persons, and induce others to follow my example. The fund shall be known as the Horwitz Benevolent Fund."

This fund now contains $20,000 of various issues of Baltimore City stock, the result of investing the annual income from the original investment of $10,000 in City stock, in 1888, under the provisions of the testator's will. The annual income of this fund is distributed by the Mayor, according to the terms and conditions of said will.

6.—The Frederick Raine Fund.

This statement shows the condition of the Frederick Raine Fund, under the control of the Commissioners of Finance, who, on November 6, 1897, under authority of Resolution No. 51, of 1897, accepted from the executors of the estate of Frederick Raine, deceased, four hundred dollars (and accrued interest amounting to eighteen dollars and seventy cents), which amount has been invested in city stock; "the interest on two hundred dollars thereof to be annually expended for a medal, to be known as the 'Frederick Raine Medal,' and to be presented to the student in Baltimore City College who shall be adjudged, by the methods of determining merit practiced in said college, to be most proficient in the study of the German language and German literature," and "the interest on two hundred dollars thereof to be annually expended for a medal, known as the 'Frederick Raine Medal,' and to be presented to the student in the Maryland Institute for the promotion of the Mechanics Arts who shall be adjudged, by the methods of determining merit practiced in said institute, to be most proficient in mechanical drawing," according to the terms of the last will and testament of said Frederick Raine, deceased.

7.—Western Maryland Railroad Company.

A sale of the city's interest in the Western Maryland Railroad Company was made on June 27, 1902, to the Fuller Syndicate for the sum of $8,751,370.45 *cash*, and the securities and cash contained in the following sinking funds, belonging to the Western Maryland Railroad Company and held in trust by the Commissioners of Finance for the said Western Maryland Railroad Company, viz.: The Hillen Station Sinking Fund, amounting to $87,959.57, which was set apart for the redemption of the ground rent on Hillen Station property; The Western Maryland Railroad Terminal Company Sinking Fund, amounting to $35,187.85, which was set apart for the redemption of the ground rent on the W. M. R. R. Terminal Company depot property; also the Western Maryland Railroad 1927 Loan Sinking Fund, amounting to

$162,662.29, which was set apart for the redemption of the Western Maryland Railroad 3¼ per cent. 1927 Loan. This last named amount of $162,662.29, with the addition of $4,263,000, plus $65,909.71, making a total of $4,328,909.71, was placed in a sinking fund, to be called the "Western Maryland Railroad Sinking Fund," for the redemption at maturity of the Western Maryland Railroad 4 per cent. 1925 Loan, amounting to $684,000; the Western Maryland Railroad 3¼ per cent. 1927 Loan, amounting to $1,704,000; the Western Maryland Railroad 3½ per cent. 1950 Loan, amounting to $875,000, and the Western Maryland Railroad 3½ per cent. 1952 Loan, amounting to $1,000,000. Total, $4,263,000.

The investment of $4,263,000 of above amount of $4,328,909.71 is secured by certificates of deposit, with a like amount of city stock as collateral. The balance has been paid and invested in city stock.

The interest on the investment of said fund is to be applied to the payment of the annual interest on the outstanding loans mentioned. The addition to the special fund of $4,263,000 of the amount contained in the Western Maryland Railroad 1927 Loan Sinking Fund ($162,622.29), and $65,909.71 from proceeds of the sale was made in order to provide the annual deficiency between the fixed interest charge of $148,365 per annum on above outstanding loans and the interest to be derived from the investment of $4,263,000 in said sinking fund at 3¼ per cent. amounting to $138,547.50 annually.

8.—Real Estate and Ground Rents.

The schedule of real estate and ground rents, presented in this form for convenience of reference, embraces only so much of the city property as is in control and shown upon the books of the Commissioners of Finance, and from which income is derived from rentals.

The income derived from public wharves, turnpike stock and market houses being applied to current expenses of the Mayor and City Council, does not appear in these statements. (Section 15, Article 47, City Code, 1893.)

9.—Cash Balances of Sinking and Special Funds.

This statement shows the cash balances of the Sinking and Special Funds, which aggregated on December 31, 1911, $32,167.70.

Funded Debt.

The funded debt, December 31, 1911, is....	$64,595,382 95
The funded debt, December 31, 1910, was..	61,647,482 95
Showing an increase during the year of.....	$2,947,900 00

The following stock having been issued:

Paving 4% 1951 Loan.....	$500,000 00	
General Fund Bonds ¼ of 1% 1955 Loan..	300,000 00	
Conduit 4% 1958 Loan.....	230,000 00	
Burnt District Improvement 4% 1960 Loan..	15,000 00	
Dock Improvement 4% 1961 Loan.....	200,000 00	
School House 4% 1961 Loan.....	500,000 00	
Jones' Falls Improvement 4% 1961 Loan....	100,000 00	
New Sewerage Improvement 3½% 1980 Loan	1,102,900 00	
		2,947,900 00

Increment of the Sinking Funds.

The increment of the Sinking Funds from December 31, 1910, to December 31, 1911, amounting to.....	$1,473,079 37

Was derived thus:

From interest on city stocks and investments.....	$808,262 27	
Less portion applicable to Enoch Pratt Free Library, Horwitz Benevolent and Frederick Raine Funds..	46,498 74	
		$761,763 53
From interest on bank deposits.....		2,554 99
From rentals from real estate.....		32,522 66
From Water Board, 1½% of gross receipts		15,813 59
From Park Board, 5% of "Park Tax"....		25,734 87
From Park Board, annual provision for Public Park Improvement 1955 Loan Sinking Fund.....		8,800 00
From City Collector, by tax levy.....		754,356 10
From premium on sales of stock during year		15,561 61
Amount carried forward.....		$1,617,107 35

Amount brought forward	$1,617,107 35	
From discount in purchases of stock during year	4,802 82	
From redemption, in part, by the Baltimore and Frederick Turnpike Company, of 137 shares of its stock	493 20	
		$1,622,403 37
From which deduct:		
One year's interest on W. M. R. R. 3¼% 1927 Loan	$55,380 00	
One year's interest on W. M. R. R. 3½% 1950 Loan	30,625 00	
One year's interest on W. M. R. R. 3½% 1952 Loan	35,000 00	
One year's interest on W. M. R. R. 4% 1925 Loan	27,360 00	
Lost to W. M. R. R. Sinking Fund in the sale of Public Improvement 3½% 1940 Loan to Public Improvement 1940 Loan Sinking Fund:		
Amount of stock sold $13,700 00		
Proceeds from same 12,741 00		
	959 00	
		149,324 00
		$1,473,079 37
The face value of the Sinking Funds December 31, 1911, is	$23,112,460 98	
The face value of the Sinking Funds December 31, 1910, was	21,639,381 61	
		$1,473,079 37
The increased value of the Sinking Funds is explained thus:		
Increment of the Sinking Funds	$1,472,586 17	
Redemption, in part, of 137 shares of the stock of the Baltimore and Frederick Turnpike Company, not heretofore shown in the Sinking Funds	493 20	
		1,473,079 37

INCREASE OF FUNDED DEBT AUTHORIZED, BUT NOT YET ISSUED.

Paving 4% 1951 Loan, Ordinance No. 661, 1911	$4,500,000 00
Annex Improvement 4% 1951 Loan, Ordinance No. 662, 1911	2,500,000 00
Burnt District Improvement 4% 1960 Loan, Ordinance No. 391, 1909	120,000 00
General Fund Bonds ¼ of 1% 1955 Loan, Ordinance No. 564, 1910	2,700,000 00
Conduit 4% 1958 Loan, Ordinance No. 142, 1908	170,000 00
Water 4% 1958 Loan, Ordinance No. 141, 1908	5,000,000 00
Dock Improvement 4% 1961 Loan, Ordinance No. 557, 1910	1,800,000 00
School House 4% 1961 Loan, Ordinance No. 556, 1910	1,000,000 00
Jones' Falls Improvement 4% 1961 Loan, Ordinance No. 555, 1910	900,000 00
New Sewerage Improvement 4% 1961 Loan, Ordinance No. 653, 1911	10,000,000 00
New Sewerage Improvement 3½% 1980 Loan, Ordinance No. 227, 1905	1,000,000 00
	$29,690,000 00

FINANCIAL CONDITION OF THE CORPORATION.

Amount of Funded Debt, December 31, 1911			$64,595,382 95
Amount of Floating Debt:			
Promissory note of the Mayor and City Council issued in favor of the Baltimore Sanitary and Contracting Company, dated January 2, 1908, at four years, bearing interest at 5% per annum, as provided in the Ordinance of Estimates for the year 1908	$55,500 00		
Accrued interest to December 31, 1911	2,775 00		
		$58,275 00	
Amounts carried forward		$58,275 00	$64,595,382 95

Amounts brought forward		$58,275 00	$64,595,382 95
Also two promissory notes of the Mayor and City Council in favor of the Maryland School for the Blind, each for $75,000, and dated June 16, 1909, payable, respectively, January 15, 1912, and January 15, 1913, or sooner if desired, bearing interest at 3½%, as provided in Ordinance No. 296, 1909	$150,000 00		
Accrued interest to December 31, 1911	233 33		
		150,233 33	
			208,508 33
			$64,803,891 28
Against which the city holds the following productive assets:			
Sinking Funds, face value		$23,112,460 98	
Water works, stock outstanding		9,500,000 00	
Electrical conduit system, stock outstanding		2,830,000 00	
New docks and piers, stock outstanding		5,215,000 00	
550 shares Baltimore and Reisterstown Turnpike stock		2,062 50	
			40,659.523 48
Excess of Funded and Floating Debt over productive assets			$24,144,367 80

UNPRODUCTIVE ASSETS.

10,000 shares of Valley Railroad of Virginia stock	.....
625 shares Baltimore and York Turnpike stock	.....
New Court House, cost	$2,750,000 00
City Hall, cost	2,250,000 00
Market and school houses, jail, police stations, almshouses, iceboats, quarantine station, parks and squares, etc	15,000,000 00
	$20,000,000 00

The foregoing statement does not embrace any items connected with the current receipts and expenditures, but refers only to the stock obligations of the corporation and to investments specially set apart for the redemption of the same.

The accounts now submitted for your consideration exhibit in detail all the transactions of the Commissioners of Finance for the current fiscal year.

They show the receipts, including a cash balance of $23,434.97 at the beginning of the year, to have been	$1,704,533 26
And the payments to have been	1,672,365 56
Leaving a balance to the credit of the Sinking and Special Funds, on December 31, 1911, of	$32,167 70

BALTIMORE AUDIT COMPANY.

BALTIMORE, February 13, 1912.

To the Honorable Mayor and City Council,
Baltimore, Md.

GENTLEMEN—We beg to report that on the eighth inst., in the presence of the Commissioners of Finance, we examined all the certificates of city stock deposited in a vault at the Safe Deposit and Trust Company, held by the Commissioners in trust for the various sinking and special funds, as follows:

Certificates for purchases prior to January 1, 1911, for sinking funds		$16,796,394 27
Less Public Improvement 1940 stock sold February 17, 1911, from Western Maryland Railroad Sinking Fund by order of Finance Committee		13,700 00
		$16,782,694 27
Purchase of city stock from time to time during 1911, the certificates representing which are now in the safe deposit box		1,478,265 70
Total		$18,260,959 97
Enoch Pratt Library Fund	$1,174,100 00	
Horwitz Benevolent Fund	20,000 00	
Frederick Raine Fund	400 00	
		1,194,500 00
		$19,455,459 97

We have fully verified, by count, the aforegoing funds.

We have also, by inspection and count, verified the certificates of deposit of the various institutions, secured by city stock to the amount of $4,263,000, which represents a part of the Western Maryland Sinking Fund, and have seen that the proper powers of attorney accompany each and every certificate of stock pledged.

We have also verified, by certificates of the depository banks, the cash held by the Commissioners of Finance against the various Sinking Funds, amounting to $32,167.70.

The figures given above are all in accord and agreement with the books as kept in the office of the Commissioners, the detail of which will be fully shown in our report.

We feel that the City of Baltimore is to be congratulated on the splendid condition of its finances, and the able manner in which they are handled by the Commissioners and City Register, under whose immediate supervision they come.

Respectfully submitted,

BALTIMORE AUDIT COMPANY,

CHARLES L. HEHL, C. P. A., *President.*

During the year there were three sales of city stock, amounting to $1,545,000. The first was on February 2, when $15,000 of Burnt District Improvement 4% 1960 Loan was disposed of at private sale. The next was a public sale, by sealed proposals, on May 15, consisting of $230,000 Conduit 4% 1958 Loan, $100,000 Jones' Falls 4% 1961 Loan, $500,000 School House 4% 1961 Loan and $200,000 Dock Improvement 4% 1961 Loan, amounting in all to $1,030,000. The next was also a public sale, by sealed proposals, on December 4, and consisted of $500,000 Paving 4% 1951 Loan. All the stock named was sold at prices above par, averaging in some instances more than 101½ and interest.

Under the agreement with the Sewerage Commission, the Board purchased from the Mayor and City Council for the Sinking Funds $1,102,900 New Sewerage Improvement 3½% 1980 Loan at par and, also at par, $300,000 General Fund Bonds ¼ of 1% 1955 Loan, under authority of Chapter 549, Acts of 1910, of the General Assembly of Maryland.

The Board also purchased in the open market, for the various sinking funds, $61,665.70 of city stock.

While the certificates of deposit, which constitute the sinking fund of the Western Maryland Loans, have a face value equal to the amount of the Loans, the revenue from the certificates of deposit is not sufficient to meet the current interest on the Loans. When the present arrangement was entered into in June, 1902, a fund, consisting of $19,310.23 in cash and $209,900 in city stock, was provided for the purpose of meeting the deficiency mentioned. Heretofore this deficiency has been made up by the use of the cash portion of the fund, but as this became exhausted during the current year, it was necessary to commence the disposal of the stock portion of the fund. Accordingly, $13,700 of Public Improvement 3½% 1940 Loan was sold. This stock was bought by the Commissioners and placed in the Public Improvement 1940 Loan Sinking Fund.

In the matter of securing the funds of the city in the various banks and trust companies, it was deemed wise to require them to deposit with the City Register, as collateral for the city funds held by them, city stock in an amount equal to the amount of such funds on deposit. Accordingly, a resolution making this requirement was passed by the Commissioners at their meeting of July 28, 1911.

Respectfully submitted,

JOHN M. LITTIG, President,
JAMES H. PRESTON, Mayor,
RICHARD GWINN, City Register,
JAMES F. THRIFT, Comptroller,
HARRY FAHNESTOCK,
Board of Commissioners of Finance.

ISAAC L. NEWMAN, Deputy City Register,
Clerk to Board of Commissioners of Finance.

APPENDIX

STATEMENT

DR. THE COMMISSIONERS OF FINANCE, IN ACCOUNT WITH

Cash balance December 31, 1910			$23,434 97
GENERAL SINKING FUND.			
From interest on stocks and investments in fund		$127,675 80	
From interest on bank deposits (daily balances)		2,554 99	
From rentals of real estate:			
Water Board	$153 00		
Park Board	6,782 62		
Mayor and City Council	19,865 59		
Individuals, corporations, etc.	5,721 45		
		32,522 66	
From City Collector, by tax levy, for sinking funds		58,647 26	
From Baltimore and Frederick Turnpike Company, in part liquidation of 137 shares of its stock		493 20	
			221,893 91
PUBLIC PARK SINKING FUND NO. 2.			
From interest on stock in fund		$12,003 99	
From Park Board, 5% of gross receipts from "Park Tax"		25,734 87	
			37,738 86
WATER 1916 LOAN SINKING FUND.			
From interest on stock in fund		$106,088 74	
From City Collector, by tax levy, for sinking fund		67,026 12	
			173,114 86
WATER 1922 LOAN SINKING FUND.			
From interest on stock in fund		$18,009 76	
From City Collector, by tax levy, for sinking fund		16,756 51	
			34,766 27
Amount carried forward			$490,948 87

No. 1.

THE MAYOR AND CITY COUNCIL OF BALTIMORE. Cr.

GENERAL SINKING FUND.

For purchase $4,600 W. M. R. R. 3¼% 1927 Loan	$4,003 26	
For purchase $152,600 New Sewerage Improvement 3½% 1980 Loan	152,600 00	
For purchase $32,265.70 Consolidated 3½% 1930 Loan	30,335 98	
For purchase $35,000 General Fund Bonds ¼ of 1% 1955 Loan	35,000 00	
		$221,939 24

PUBLIC PARK SINKING FUND No. 2.

For purchase $38,600 New Sewerage 3½% 1980 Loan	38,237 44

WATER 1916 LOAN SINKING FUND.

For purchase $173,100 New Sewerage Improvement 3½% 1980 Loan	173,100 00

WATER 1922 LOAN SINKING FUND.

For purchase $34,900 New Sewerage 3½% 1980 Loan	34,900 00
Amount carried forward	$468,176 68

STATEMENT

DR. THE COMMISSIONERS OF FINANCE, IN ACCOUNT WITH

Amount brought forward		$490,948 87
WATER 1926 LOAN SINKING FUND.		
From interest on stock in fund	$34,794 74	
From City Collector, by tax levy, for sinking fund	33,513 04	
		68,307 78
WATER 1943 LOAN SINKING FUND.		
From interest on stock in fund	$4,852 50	
From Water Board, 1½% of gross receipts for 1910, for sinking fund	15,813 59	
		20,666 09
WATER 1958 LOAN SINKING FUND.		
From interest on stock in fund	$3,389 75	
From City Collector, by tax levy, for sinking fund	38,000 00	
		41,389 75
CONDUIT 1922 LOAN SINKING FUND.		
From interest on stock in fund	$17,008 50	
From City Collector, by tax levy, for sinking fund	33,513 04	
		50,521 54
CONDUIT 1928 LOAN SINKING FUND.		
From interest on stock in fund	$11,345 00	
From City Collector, by tax levy, for sinking fund	33,513 04	
		44,858 04
CONDUIT 1958 LOAN SINKING FUND.		
From interest on stock in fund	$1,223 25	
From City Collector, by tax levy, for sinking fund	7,600 00	
From premium on sales of stock in 1911	3,495 00	
		12,318 25
Amount carried forward		$729,010 32

No. 1.—*Continued.*

THE MAYOR AND CITY COUNCIL OF BALTIMORE. CR.

Amount brought forward		$468,176 68
WATER 1926 LOAN SINKING FUND.		
For purchase $34,500 New Sewerage Improvement 3½% 1980 Loan	34,500 00	
For purchase $34,000 General Fund Bonds ¼ of 1% 1955 Loan	34,000 00	
		68,500 00
WATER 1943 LOAN SINKING FUND.		
For purchase $21,000 New Sewerage Improvement 3½% 1980 Loan		21,000 00
WATER 1958 LOAN SINKING FUND.		
For purchase $41,600 New Sewerage Improvement 3½% 1980 Loan		41,600 00
CONDUIT 1922 LOAN SINKING FUND.		
For purchase $25,600 New Sewerage Improvement 3½% 1980 Loan	$25,600 00	
For purchase $15,000 Conduit 3½% 1922 Loan	14,411 04	
For purchase $11,000 General Fund Bonds ¼ of 1% 1955 Loan	11,000 00	
		51,011 04
CONDUIT 1928 LOAN SINKING FUND.		
For purchase $33,800 New Sewerage Improvement 3½% 1980 Loan	$33,800 00	
For purchase $11,000 General Fund Bonds ¼ of 1% 1955 Loan	11,000 00	
		44,800 00
CONDUIT 1958 LOAN SINKING FUND.		
For purchase $12,500 New Sewerage Improvement 3½% 1980 Loan		12,500 00
Amount carried forward		$707,587 72

STATEMENT

DR. THE COMMISSIONERS OF FINANCE, IN ACCOUNT WITH

Amount brought forward		$729,010 32
INTERNAL IMPROVEMENT 1928 LOAN SINKING FUND.		
From interest on stock in fund	$96,260 75	
From City Collector, by tax levy, for sinking fund	100,539 18	
		196,799 93
FUNDING 1936 LOAN SINKING FUND.		
From interest on stock in fund	$21,962 00	
From City Collector, by tax levy, for sinking fund	33,513 04	
		55,475 04
PUBLIC IMPROVEMENT 1940 LOAN SINKING FUND.		
From interest on stock in fund	$50,327 75	
From City Collector, by tax levy, for sinking fund	67,026 12	
		117,353 87
REFUNDING 1940 LOAN SINKING FUND.		
From interest on stock in fund	$48,416 26	
From City Collector, by tax levy, for sinking fund	67,026 12	
		115,442 38
FOUR MILLION 1945 LOAN SINKING FUND.		
From interest on stock in fund	$19,059 75	
From City Collector, by tax levy, for sinking fund	16,756 51	
		35,816 26
Amount carried forward		$1,249 897 80

No. 1.—*Continued.*

THE MAYOR AND CITY COUNCIL OF BALTIMORE. CR.

Amount brought forward		$707,587 72
INTERNAL IMPROVEMENT 1928 LOAN SINKING FUND.		
For purchase $114,200 New Sewerage Improvement 3½% 1980 Loan	$114,200 00	
For purchase $2,600 Internal Improvement 3½% 1928 Loan	2,462 70	
For purchase $80,000 General Fund Bonds ¼ of 1% 1955 Loan	80,000 00	
		196,662 70
FUNDING 1936 LOAN SINKING FUND.		
For purchase $28,600 New Sewerage Improvement 3½% 1980 Loan	$28,600 00	
For purchase $1,000 Funding 3½% 1936 Loan	938 36	
For purchase $26,000 General Fund Bonds ¼ of 1% 1955 Loan	26,000 00	
		55,538 36
PUBLIC IMPROVEMENT 1940 LOAN SINKING FUND.		
For purchase $83,300 New Sewerage Improvement 3½% 1980 Loan	$83,300 00	
For purchase $14,200 Public Improvement 3½% 1940 Loan	13,211 43	
For purchase $21,000 General Fund Bonds ¼ of 1% 1955 Loan	21,000 00	
		117,511 43
REFUNDING 1940 LOAN SINKING FUND.		
For purchase $69,700 New Sewerage Improvement 3½% 1980 Loan	$69,700 00	
For purchase $700 Refunding 3½% 1940 Loan	658 60	
For purchase $45,000 General Fund Bonds ¼ of 1% 1955 Loan	45,000 00	
		115,358 60
FOUR MILLION 1945 LOAN SINKING FUND.		
For purchase $36,200 New Sewerage Improvement 3½% 1980 Loan		36,200 00
Amount carried forward		$1,228,858 81

STATEMENT

DR. THE COMMISSIONERS OF FINANCE, IN ACCOUNT WITH

Amount brought forward		$1,249,897 80
ANNEX IMPROVEMENT 1954 LOAN SINKING FUND.		
From interest on stock in fund	$5,446 00	
From City Collector, by tax levy, for sinking fund	17,500 00	
From premium on sales of stock in 1908	613 15	
		23,559 15
PAVING 1951 LOAN SINKING FUND.		
From premiums on sales of stock		2,246 46
BURNT DISTRICT IMPROVEMENT 1954 LOAN SINKING FUND.		
From interest on stock in fund	$22,377 24	
From City Collector, by tax levy, for sinking fund	67,026 12	
		89,403 36
BURNT DISTRICT IMPROVEMENT 1960 LOAN SINKING FUND.		
From interest on stock in fund	$407 75	
From City Collector, by tax levy, for sinking fund	7,600 00	
From premium on sales of stock	150 00	
		8,157 75
PUBLIC PARK IMPROVEMENT 1955 LOAN SINKING FUND.		
From interest on stock in fund	$1,879 50	
From Park Board, for annual sinking fund	8,800 00	
		10,679 50
NEW ENGINE HOUSE 1957 LOAN SINKING FUND.		
From interest on stock in fund	$2,114 00	
From City Collector, by tax levy, for sinking fund	8,800 00	
		10,914 00
NEW SCHOOL HOUSE 1957 LOAN SINKING FUND		
From interest on stock in fund	$2,114 00	
From City Collector, by tax levy, for sinking fund	8,800 00	
		10,914 00
Amount carried forward		$1,405,772 02

No. 1.—*Continued.*

THE MAYOR AND CITY COUNCIL OF BALTIMORE. CR.

Amount brought forward		$1,228,858 81
ANNEX IMPROVEMENT 1954 LOAN SINKING FUND.		
For purchase $23,500 New Sewerage Improvement 3½% 1980 Loan		23,500 00
PAVING 1951 LOAN SINKING FUND.		
BURNT DISTRICT IMPROVEMENT 1954 LOAN SINKING FUND.		
For purchase $52,500 New Sewerage Improvement 3½% 1980 Loan	$52,500 00	
For purchase $37,000 General Fund Bonds ¼ of 1% 1955 Loan	37,000 00	
		89,500 00
BURNT DISTRICT IMPROVEMENT 1960 LOAN SINKING FUND.		
For purchase $8,400 New Sewerage Improvement 3½% 1980 Loan		8,400 00
PUBLIC PARK IMPROVEMENT 1955 LOAN SINKING FUND.		
For purchase $11,200 New Sewerage Improvement 3½% 1980 Loan		11,200 00
NEW ENGINE HOUSE 1957 LOAN SINKING FUND.		
For purchase $11,100 New Sewerage Improvement 3½% 1980 Loan		11,100 00
NEW SCHOOL HOUSE 1957 LOAN SINKING FUND.		
For purchase $11,100 New Sewerage Improvement 3½% 1980 Loan		11,100 00
Amount carried forward		$1,383,658 81

STATEMENT

DR. THE COMMISSIONERS OF FINANCE, IN ACCOUNT WITH

Amount brought forward		$1,405,772 02
SCHOOL HOUSE 1961 LOAN SINKING FUND.		
From interest on stock in fund	$299 25	
From City Collector, by tax levy, for sinking fund	11,400 00	
From premium on sales of stock	5,757 00	
		17,456 25
JONES' FALLS IMPROVEMENT 1961 LOAN SINKING FUND.		
From City Collector, by tax levy, for sinking fund	$7,600 00	
From premium on sales of stock	1,100 00	
		8,700 00
DOCK IMPROVEMENT 1961 LOAN SINKING FUND.		
From City Collector, by tax levy, for sinking fund	$15,200 00	
From interest on stock in fund	304 50	
From premium on sales of stock	2,200 00	
		17,704 50
NEW SEWERAGE IMPROVEMENT 1980 LOAN SINKING FUND.		
From interest on stock in fund	$8,806 00	
From City Collector, by tax levy, for sinking fund	37,000 00	
		45,806 00
W. M. R. R. SINKING FUND		
From interest on stock in fund	$7,049 25	
From interest on certificates of deposit in fund	138,547 50	
From sale of $13,700 Public Improvement 3½% 1940 Loan, in the fund, to Public Improvement 1940 Loan Sinking Fund	12,741 00	
		158,337 75
Amount carried forward		$1,653,776 52

No. 1.—*Continued.*

THE MAYOR AND CITY COUNCIL OF BALTIMORE. CR.

Amount brought forward		$1,383,658 81
SCHOOL HOUSE 1961 LOAN SINKING FUND.		
For purchase $17,400 New Sewerage Improvement 3½% 1980 Loan		17,400 00
JONES' FALLS IMPROVEMENT 1961 LOAN SINKING FUND.		
For purchase $8,600 New Sewerage Improvement 3½% 1980 Loan		8,600 00
DOCK IMPROVEMENT 1961 LOAN SINKING FUND.		
For purchase $17,700 New Sewerage Improvement 3½% 1980 Loan		17,700 00
NEW SEWERAGE IMPROVEMENT 1980 LOAN SINKING FUND.		
For purchase $46,200 New Sewerage Improvement 3½% 1980 Loan		46,104 07
W. M. R. R. SINKING FUND		
For one year's interest on W. M. R. R. 3¼% 1927 Loan	$55,380 00	
For one year's interest on W. M. R. R. 3½% 1950 Loan	30,625 00	
For one year's interest on W. M. R. R. 3½% 1952 Loan	35,000 00	
For one year's interest on W. M. R. R. 4% 1925 Loan	27,360 00	
		148,365 00
Amount carried forward		$1,621,827 88

STATEMENT

DR. THE COMMISSIONERS OF FINANCE, IN ACCOUNT WITH

Amount brought forward		$1,653,776 52
ENOCH PRATT FREE LIBRARY FUND.		
From interest on stock in fund	$45,742 00	
From Mayor and City Council, to supply the deficiency in income of fund, to pay the annuity of $50,000	4,258 00	
		50,000 00
FREDERICK RAINE FUND.		
From interest on stock in fund		14 00
HORWITZ BENEVOLENT FUND.		
From interest on stock in fund		742 74
		$1,704,533 26

No. 1.—*Concluded.*

THE MAYOR AND CITY COUNCIL OF BALTIMORE. CR.

Amount brought forward	$1,621,827 88
ENOCH PRATT FREE LIBRARY FUND.	
For annuity	50,000 00
FREDERICK RAINE FUND.	
For one medal, awarded by Board of School Commissioners $7 00	
For one medal, awarded by Maryland Institute 7 00	
	14 00
HORWITZ BENEVOLENT FUND.	
For first distribution of income in aid of the support of twelve poor families of the City of Baltimore	523 68
BY CASH BALANCE, December 31, 1911	32,167 70
	$1,704,533 26

RECAPITULATION.

STATEMENT NO. 1—RECEIPTS.

SINKING FUNDS.	Interest on Stock and Investments.	City Collector by Tax Levy.	Interest on Deposits.	Redemption of Turnpike Stock.	Park Board "Park Tax."	Water Board 1½% of Gross Receipts.	Premium on Sales of Stock.	Sale of Public Improvement Stock.	Enoch Pratt Free Library Fund Deficiency.	Ground Rents.	Public Park 1955 Loan Sinking Fund.
General	$127,675 80	$58,647 26	$2,554 99	$493 20						$32,522 66	
Public Park Sinking Fund No. 2	12,003 99				$25,734 87						
Water 1916 Loan	106,088 74	67,026 12									
Water 1922 Loan	18,009 76	16,756 51									
Water 1926 Loan	34,794 74	33,513 04									
Water 1943 Loan	4,852 50					$15,813 59					
Water 1958 Loan	3,389 75	38,000 00									
Conduit 1922 Loan	17,008 50	33,513 04									
Conduit 1928 Loan	11,345 00	33,513 04									
Conduit 1958 Loan	1,223 25	7,600 00					$3,495 00				
Internal Improvement 1928 Loan	96,260 75	100,539 18									
Funding 1936 Loan	21,962 00	33,513 04									
Public Improvement 1940 Loan	50,327 75	67,026 12									
Refunding 1940 Loan	48,416 26	67,026 12									
Four Million 1945 Loan	19,059 75	16,756 51									
Annex Improvement 1954 Loan	5,446 00	17,500 00					613 15				
Paving 1951 Loan							2,246 46				
Burnt District Improvement 1954 Loan	22,377 24	67,026 12									
Burnt District Improvement 1960 Loan	407 75	7,600 00					150 00				
Public Park Improvement 1955 Loan	1,879 50										$8,800 00
New Engine House 1957 Loan	2,114 00	8,800 00									
New School House 1957 Loan	2,114 00	8,800 00									
School House 1961 Loan	299 25	11,400 00					5,757 00				
Jones' Falls Improvement 1961 Loan		7,600 00					1,100 00				
Dock Improvement 1961 Loan	304 50	15,200 00					2,200 00				
New Sewerage Improvement 1980 Loan	8,806 00	37,000 00									
W. M. R. R. Sinking Fund	145,596 75							$12,741 00			
	$761,763 53	$754,356 10	$2,554 90	$493 20	$25,734 87	$15,813 59	$15,561 61	$12,741 00		$32,522 66	$8,800 00
Enoch Pratt Free Library Fund	45,742 00								$4,258 00		
Frederick Raine Fund	14 00										
Horwitz Benevolent Fund	742 74										
	$808,262 27	$754,356 10	$2,554 99	$493 20	$25,734 87	$15,813 59	$15,561 61	$12,741 00	$4,258 00	$32,522 66	$8,800 00

RECAPITULATION.

Statement No. 1—Payments.

Sinking Funds.	Cost of Stock Purchased.	Interest W. M. R. R. 1927 Loan.	Interest W. M. R. R. 1950 Loan.	Interest W. M. R. R. 1952 Loan.	Interest W. M. R. R. 1925 Loan.	Enoch Pratt Free Library. Annuity.	Board of School Commissioners.	Maryland Institute.	Horwitz Benevolent Fund, Distribution of Income to the Poor.
General Sinking Fund	$221,939 24								
Public Park Sinking Fund No. 2	38,237 44								
Water 1916 Loan	173,100 00								
Water 1922 Loan	34,900 00								
Water 1926 Loan	68,500 00								
Water 1943 Loan	21,000 00								
Water 1958 Loan	41,600 00								
Conduit 1922 Loan	51,911 04								
Conduit 1928 Loan	44,800 00								
Conduit 1958 Loan	12,500 00								
Internal Improvement 1928 Loan	196,662 70								
Funding 1936 Loan	55,538 36								
Public Improvement 1940 Loan	117,511 43								
Refunding 1940 Loan	115,358 60								
Four Million 1945 Loan	36,200 00								
Annex Improvement 1954 Loan	23,500 00								
Burnt District Improvement 1954 Loan	89,500 00								
Burnt District Improvement 1960 Loan	8,400 00								
Public Park Improvement 1955 Loan	11,200 00								
New Engine House 1957 Loan	11,100 00								
New School House 1957 Loan	11,100 00								
School House 1961 Loan	17,400 00								
Jones' Falls Improvement 1961 Loan	8,600 00								
Dock Improvement 1961 Loan	17,700 00								
New Sewerage Improvement 1980 Loan	46,104 07								
W. M. R. R. Sinking Fund		$55,380 00	$30,625 00	$35,000 00	$27,360 00				
Enoch Pratt Free Library Fund						$50,000 00			
Frederick Raine Fund							$7 00	$7 00	
Horwitz Benevolent Fund									$523 68
	$1,473,462 88	$55,380 00	$30,625 00	$35,000 00	$27,360 00	$50,000 00	$7 00	$7 00	$523 68

STATEMENT No. 2.

STOCKS PURCHASED FOR SINKING FUNDS AS REQUIRED BY SECTION 13, ARTICLE 47, CITY CODE, 1893.

DATE.	SINKING FUND	AMOUNT PURCHASED.	DESCRIPTION OF STOCK.	AMOUNT PAID.
1911				
Jan. 3.....	New Sew. Impt. 1980 Loan	$44,000 00	New Sewerage Impt. 3½% 1980 Loan..	$44,000 00
Jan. 3.....	Water 1916 Loan.....	58,900 00	New Sewerage Impt. 3½% 1980 Loan..	58,900 00
Jan. 4.....	General	4,500 00	W. M. R. R. 3¼% 1927 Loan.....	3,916 22
Jan. 5.....	General	100 00	W. M. R. R. 3¼% 1927 Loan.....	87 04
Jan. 24.....	Conduit 1922 Loan.....	15,000 00	Conduit 3½% 1922 Loan.....	14,411 04
Jan. 27.....	General	21,000 00	Consolidated 3½% 1930 Loan.....	19,740 58
Jan. 30.....	Internal Impt. 1928 Loan..	1,000 00	Internal Impt. 3½% 1928 Loan.....	945 32
Jan. 30.....	New Sew. Impt. 1980 Loan	1,000 00	New Sewerage 3½% 1980 Loan.....	904 07
Feb. 1.....	General Sinking Fund....	10 000 00	Consolidated 3½% 1930 Loan.....	9,391 67
Feb. 3.....	Public Pk. Sink. Fund No. 2	4,000 00	New Sewerage Impt. 3½% 1980 Loan..	3,637 44
Feb. 17.....	*Public Impt. 1940 Loan...	13,700 00	Public Impt. 3½% 1940 Loan.....	12,741 00
Mar. 27.....	Internal Impt. 1928 Loan..	1,600 00	Internal Impt. 3½% 1928 Loan.....	1,517 38
Mar. 27.....	General	1,200 00	Consolidated 3½% 1930 Loan.....	1,138 03
Mar. 27.....	Funding 1936 Loan.....	1,000 00	Funding 3½% 1936 Loan.....	938 36
Mar. 27.....	Public Impt. 1940 Loan...	500 00	Public Impt. 3½% 1940 Loan.....	470 43
Mar. 27.....	Refunding 1940 Loan.....	700 00	Refunding 3½% 1940 Loan.....	658 60
April 6.....	General Sinking Fund....	33,000 00	New Sewerage Impt. 3½% 1980 Loan..	33,000 00
April 6.....	Public Pk. Sink. Fund No. 2	6,000 00	New Sewerage Impt. 3½% 1980 Loan.	6,000 00
April 6.....	Burnt Dist. Impt. 1954 Loan	15,000 00	New Sewerage Impt. 3½% 1980 Loan..	15,000 00
April 6.....	Public Impt. 1940 Loan....	31,000 00	New Sewerage Impt. 3½% 1980 Loan.	31,000 00
April 6.....	Internal Impt. 1928 Loan..	23,000 00	New Sewerage Impt. 3½% 1980 Loan..	23,000 00
April 6.....	Refunding 1940 Loan.....	19,000 00	New Sewerage Impt. 3½% 1980 Loan..	19,000 00
	Carried forward.....	$305,200 00	*Carried forward*.....	$300,397 18

STATEMENT No. 2—*Continued.*

STOCKS PURCHASED FOR SINKING FUNDS AS REQUIRED BY SECTION 13, ARTICLE 47, CITY CODE, 1893.

DATE.	SINKING FUND.	AMOUNT PURCHASED.	DESCRIPTION OF STOCK.	AMOUNT PAID.
1911	*Brought forward*.....	$305,200 00	*Brought forward*.....	$300,397 18
April 6.....	Four Million 1045 Loan...	18,000 00	New Sewerage Impt. 3½% 1980 Loan..	18,000 00
April 6.....	Conduit 1922 Loan.....	4,000 00	New Sewerage Impt. 3½% 1980 Loan..	4,000 00
April 6.....	School House 1961 Loan..	11,400 00	New Sewerage Impt. 3½% 1980 Loan..	11,400 00
April 6.....	Funding 1936 Loan.....	5,000 00	New Sewerage Impt. 3½% 1980 Loan..	5,000 00
April 6.....	Conduit 1928 Loan.....	16,000 00	New Sewerage Impt. 3½% 1980 Loan..	16,000 00
April 6.....	Public Pk. Impt. 1955 Loan.	8,000 00	New Sewerage Impt. 3½% 1980 Loan..	8,000 00
April 6.....	Water 1922 Loan.....	17,000 00	New Sewerage Impt. 3½% 1980 Loan..	17,000 00
April 6.....	Water 1943 Loan.....	16,000 00	New Sewerage Impt. 3½% 1980 Loan..	16,000 00
April 6.....	Water 1958 Loan.....	38,000 00	New Sewerage Impt. 3½% 1980 Loan..	38,000 00
April 6.....	Annex Impt. 1954 Loan...	18,000 00	New Sewerage Impt. 3½% 1980 Loan..	18,000 00
April 6.....	Water 1916 Loan.....	13,000 00	New Sewerage Impt. 3½% 1980 Loan..	13,000 00
April 27.....	General Sinking Fund....	35,000 00	Gen'l Fund Bonds ¼ of 1% 1955 Loan.	35,000 00
April 27.....	Burnt Dist. Impt. 1954 Loan	37,000 00	Gen'l Fund Bonds ¼ of 1% 1955 Loan.	37,000 00
April 27.....	Public Impt. 1940 Loan....	21,000 00	Gen'l Fund Bonds ¼ of 1% 1955 Loan.	21,000 00
April 27.....	Internal Impt. 1928 Loan..	80,000 00	Gen'l Fund Bonds ¼ of 1% 1955 Loan.	80,000 00
April 27.....	Funding 1936 Loan.....	26,000 00	Gen'l Fund Bonds ¼ of 1% 1955 Loan.	26,000 00
April 27.....	Conduit 1922 Loan.....	11,000 00	Gen'l Fund Bonds ¼ of 1% 1955 Loan.	11,000 00
April 27.....	Refunding 1940 Loan.....	45,000 00	Gen'l Fund Bonds ¼ of 1% 1955 Loan.	45,000 00
April 27.....	Conduit 1928 Loan.....	11,000 00	Gen'l Fund Bonds ¼ of 1% 1955 Loan.	11,000 00
April 27.....	Water 1926 Loan.....	34,000 00	Gen'l Fund Bonds ¼ of 1% 1955 Loan.	34,000 00
May 5.....	General Sinking Fund....	10,500 00	New Sewerage Impt. 3½% 1980 Loan..	10,500 00
May 5.....	Public Pk. Sink. Fund No. 2	7,500 00	New Sewerage Impt. 3½% 1980 Loan..	7,500 00
May 5.....	Burnt Dist. Impt. 1954 Loan	5,500 00	New Sewerage Impt. 3½% 1980 Loan...	5,500 00

May	5	Public Impt. 1940 Loan	6,000 00	New Sewerage Impt. 3½% 1980 Loan	6,000 00
May	5	Internal Impt. 1928 Loan	11,500 00	New Sewerage Impt. 3½% 1980 Loan	11,500 00
May	5	Refunding 1940 Loan	6,000 00	New Sewerage Impt. 3½% 1980 Loan	6,000 00
May	5	Four Million 1945 Loan	3,000 00	New Sewerage Impt. 3½% 1980 Loan	3,000 00
May	5	Conduit 1922 Loan	2,500 00	New Sewerage Impt. 3½% 1980 Loan	2,500 00
May	5	Funding 1936 Loan	2,500 00	New Sewerage Impt. 3½% 1980 Loan	2,500 00
May	5	Conduit 1958 Loan	500 00	New Sewerage Impt. 3½% 1980 Loan	500 00
May	5	Conduit 1928 Loan	2,500 00	New Sewerage Impt. 3½% 1980 Loan	2,500 00
May	5	Public Pk. Impt. 1955 Loan	1,500 00	New Sewerage Impt. 3½% 1980 Loan	1,500 00
May	5	Water 1922 Loan	3,000 00	New Sewerage Impt. 3½% 1980 Loan	3,000 00
May	5	New Eng. House 1957 Loan	900 00	New Sewerage Impt. 3½% 1980 Loan	900 00
May	5	Water 1943 Loan	1,500 00	New Sewerage Impt. 3½% 1980 Loan	1,500 00
May	5	New Schl. House 1957 Loan	900 00	New Sewerage Impt. 3½% 1980 Loan	900 00
May	5	Water 1926 Loan	6,000 00	New Sewerage Impt. 3½% 1980 Loan	6,000 00
May	5	Water 1958 Loan	1,500 00	New Sewerage Impt. 3½% 1980 Loan	1,500 00
May	5	Annex Impt. 1954 Loan	1,000 00	New Sewerage Impt. 3½% 1980 Loan	1,000 00
May	5	Dock Impt. 1961 Loan	15,200 00	New Sewerage Impt. 3½% 1980 Loan	15,200 00
May	5	Water 1916 Loan	26,000 00	New Sewerage Impt. 3½% 1980 Loan	26,000 00
May	5	Burnt Dist. Impt. 1960 Loan	500 00	New Sewerage Impt. 3½% 1980 Loan	500 00
June	7	General Sinking Fund	16,300 00	New Sewerage Impt. 3½% 1980 Loan	16,300 00
June	7	Public Pk. Sink. Fund No. 2	1,600 00	New Sewerage Impt. 3½% 1980 Loan	1,600 00
June	7	Burnt Dist. Impt. 1954 Loan	7,600 00	New Sewerage Impt. 3½% 1980 Loan	7,600 00
June	7	Public Impt. 1940 Loan	7,500 00	New Sewerage Impt. 3½% 1980 Loan	7,500 00
June	7	Internal Impt. 1928 Loan	11,500 00	New Sewerage Impt. 3½% 1980 Loan	11,500 00
June	7	Refunding 1940 Loan	7,000 00	New Sewerage Impt. 3½% 1980 Loan	7,000 00
June	7	Four Million 1945 Loan	2,000 00	New Sewerage Impt. 3½% 1980 Loan	2,000 00
June	7	Conduit 1922 Loan	3,500 00	New Sewerage Impt. 3½% 1980 Loan	3,500 00
June	7	Funding 1936 Loan	3,600 00	New Sewerage Impt. 3½% 1980 Loan	3,600 00
June	7	Conduit 1958 Loan	300 00	New Sewerage Impt. 3½% 1980 Loan	300 00
June	7	Conduit 1928 Loan	3,100 00	New Sewerage Impt. 3½% 1980 Loan	3,100 00
June	7	Public Pk. Impt. 1955 Loan	600 00	New Sewerage Impt. 3½% 1980 Loan	600 00
		Carried forward	$950,200 00	*Carried forward*	$945,397 18

STATEMENT No. 2—*Continued.*

STOCKS PURCHASED FOR SINKING FUNDS AS REQUIRED BY SECTION 13, ARTICLE 47, CITY CODE, 1893.

DATE.	SINKING FUND.	AMOUNT PURCHASED.	DESCRIPTION OF STOCK.	AMOUNT PAID.
1911	*Brought forward*.....	$950,200 00	*Brought forward*.....	$945,397 18
June 7.....	Water 1922 Loan.....	2,500 00	New Sewerage Impt. 3½% 1980 Loan..	2,500 00
June 7.....	New Eng. House 1957 Loan	300 00	New Sewerage Impt. 3½% 1980 Loan..	300 00
June 7.....	Water 1943 Loan.....	900 00	New Sewerage Impt. 3½% 1980 Loan..	900 00
June 7.....	New Schl. House 1957 Loan	300 00	New Sewerage Impt. 3½% 1980 Loan..	300 00
June 7.....	Water 1926 Loan.....	4,000 00	New Sewerage Impt. 3½% 1980 Loan..	4,000 00
June 7.....	Annex Impt. 1954 Loan...	1,700 00	New Sewerage Impt. 3½% 1980 Loan..	1,700 00
June 7.....	Water 1916 Loan.....	8,700 00	New Sewerage Impt. 3½% 1980 Loan..	8,700 00
June 17.....	School House 1961 Loan..	5,700 00	New Sewerage Impt. 3½% 1980 Loan..	5,700 00
June 17.....	Dock Impt. 1961 Loan....	2,200 00	New Sewerage Impt. 3½% 1980 Loan..	2,200 00
June 17.....	Conduit 1958 Loan.....	3,400 00	New Sewerage Impt. 3½% 1980 Loan..	3,400 00
July 12.....	General Sinking Fund....	45,900 00	New Sewerage Impt. 3½% 1980 Loan..	45,900 00
July 12.....	Public Pk. Sink. Fund No. 2	2,300 00	New Sewerage Impt. 3½% 1980 Loan..	2,300 00
July 12.....	Burnt Dist. Impt. 1954 Loan	8,500 00	New Sewerage Impt. 3½% 1980 Loan..	8,500 00
July 12.....	Public Impt. 1940 Loan...	18,600 00	New Sewerage Impt. 3½% 1980 Loan..	18,600 00
July 12.....	Internal Impt. 1928 Loan..	32,700 00	New Sewerage Impt. 3½% 1980 Loan..	32,700 00
July 12.....	Refunding 1940 Loan.....	19,700 00	New Sewerage Impt. 3½% 1980 Loan..	19,700 00
July 12.....	Four Million 1945 Loan..	5,000 00	New Sewerage Impt. 3½% 1980 Loan..	5,000 00
July 12.....	Conduit 1922 Loan.....	7,600 00	New Sewerage Impt. 3½% 1980 Loan..	7,600 00
July 12.....	Funding 1936 Loan.....	6,400 00	New Sewerage Impt. 3½% 1980 Loan..	6,400 00
July 12.....	Conduit 1958 Loan.....	300 00	New Sewerage Impt. 3½% 1980 Loan..	300 00
July 12.....	Conduit 1928 Loan.....	5,400 00	New Sewerage Impt. 3½% 1980 Loan..	5,400 00
July 12.....	Public Pk. Impt. 1955 Loan.	100 00	New Sewerage Impt. 3½% 1980 Loan..	100 00
July 12.....	Water 1922 Loan.....	6,000 00	New Sewerage Impt. 3½% 1980 Loan..	6,000 00

July 12.....	New Eng. House 1957 Loan	9,200 00	New Sewerage Impt. 3½% 1980 Loan..	9,200 00
July 12.....	Water 1043 Loan.....	600 00	New Sewerage Impt. 3½% 1980 Loan..	600 00
July 12.....	New Schl. House 1957 Loan	9,200 00	New Sewerage Impt. 3½% 1980 Loan..	9,200 00
July 12.....	Water 1926 Loan.....	10,900 00	New Sewerage Impt. 3½% 1980 Loan..	10,900 00
July 12.....	Annex Impt. 1954 Loan...	500 00	New Sewerage Impt. 3½% 1980 Loan..	500 00
July 12.....	Water 1916 Loan.....	17,400 00	New Sewerage Impt. 3½% 1980 Loan..	17,400 00
Aug. 3.....	General Sinking Fund....	65 70	Consolidated 3½% 1930 Loan.....	65 70
Aug. 5.....	General Sinking Fund....	6,500 00	New Sewerage Impt. 3½% 1980 Loan..	6,500 00
Aug. 5.....	Public Pk. Sink. Fund No. 2	6,700 00	New Sewerage Impt. 3½% 1980 Loan..	6,700 00
Aug. 5.....	Burnt Dist. Impt. 1954 Loan	5,300 00	New Sewerage Impt. 3½% 1980 Loan..	5,300 00
Aug. 5.....	Public Impt. 1940 Loan...	5,300 00	New Sewerage Impt. 3½% 1980 Loan..	5,300 00
Aug. 5.....	Internal Impt. 1928 Loan..	8,000 00	New Sewerage Impt. 3½% 1980 Loan..	8,000 00
Aug. 5.....	Refunding 1940 Loan.....	5,300 00	New Sewerage Impt. 3½% 1980 Loan..	5,300 00
Aug. 5.....	Four Million 1945 Loan..	1,300 00	New Sewerage Impt. 3½% 1980 Loan..	1,300 00
Aug. 5.....	Conduit 1922 Loan.....	2,700 00	New Sewerage Impt. 3½% 1980 Loan..	2,700 00
Aug. 5.....	Funding 1936 Loan.....	2,700 00	New Sewerage Impt. 3½% 1980 Loan..	2,700 00
Aug. 5.....	Conduit 1928 Loan.....	2,700 00	New Sewerage Impt. 3½% 1980 Loan..	2,700 00
Aug. 5.....	Water 1922 Loan.....	1,300 00	New Sewerage Impt. 3½% 1980 Loan..	1,300 00
Aug. 5.....	Water 1926 Loan.....	100 00	New Sewerage Impt. 3½% 1980 Loan..	100 00
Aug. 5.....	Water 1916 Loan.....	5,300 00	New Sewerage Impt. 3½% 1980 Loan..	5,300 00
Aug. 15.....	Conduit 1958 Loan.....	7,600 00	New Sewerage Impt. 3½% 1980 Loan..	7,600 00
Aug. 15.....	Burnt Dist. Impt. 1960 Loan	7,600 00	New Sewerage Impt. 3½% 1980 Loan..	7,600 00
Oct. 4.....	General Sinking Fund....	20,000 00	New Sewerage Impt. 3½% 1980 Loan..	20,000 00
Oct. 4.....	Public Pk. Sink. Fund No. 2	2,000 00	New Sewerage Impt. 3½% 1980 Loan..	2,000 00
Oct. 4.....	Burnt Dist. Impt. 1954 Loan	4,000 00	New Sewerage Impt. 3½% 1980 Loan..	4,000 00
Oct. 4.....	Public Impt. 1940 Loan...	8,000 00	New Sewerage Impt. 3½% 1980 Loan..	8,000 00
Oct. 4.....	Internal Impt. 1928 Loan.	14,400 00	New Sewerage Impt. 3½% 1980 Loan..	14,400 00
Oct. 4.....	Refunding 1940 Loan.....	7,000 00	New Sewerage Impt. 3½% 1980 Loan..	7,000 00
Oct. 4.....	Four Million 1945 Loan...	5,000 00	New Sewerage Impt. 3½% 1980 Loan..	5,000 00
Oct. 4.....	Jones' Falls Impt. 1961 Loan	7,600 00	New Sewerage Impt. 3½% 1980 Loan..	7,600 00
Oct. 4.....	Conduit 1922 Loan.....	2,000 00	New Sewerage Impt. 3½% 1980 Loan..	2,000 00
	Carried forward.....	$1,324,665 70	*Carried forward*.....	$1,319,862 88

STATEMENT No. 2—*Concluded.*

STOCKS PURCHASED FOR SINKING FUNDS AS REQUIRED BY SECTION 13, ARTICLE 47, CITY CODE, 1893.

DATE.	SINKING FUND.	AMOUNT PURCHASED.	DESCRIPTION OF STOCK.	AMOUNT PAID.
1911	*Brought forward*.....	$1,324,665 70	*Brought forward*.....	$1,319,862 88
Oct. 4.....	Funding 1936 Loan.....	6,000 00	New Sewerage Impt. 3½% 1980 Loan..	6,000 00
Oct. 4.....	Conduit 1928 Loan.....	2,000 00	New Sewerage Impt. 3½% 1980 Loan..	2,000 00
Oct. 4.....	Water 1922 Loan.....	2,000 00	New Sewerage Impt. 3½% 1980 Loan..	2,000 00
Oct. 4.....	Water 1926 Loan.....	7,000 00	New Sewerage Impt. 3½% 1980 Loan..	7,000 00
Oct. 4.....	Water 1958 Loan.....	2,000 00	New Sewerage Impt. 3½% 1980 Loan..	2,000 00
Oct. 4.....	Water 1916 Loan.....	15,000 00	New Sewerage Impt. 3½% 1980 Loan..	15,000 00
Nov. 6.....	General Sinking Fund....	10,200 00	New Sewerage Impt. 3½% 1980 Loan..	10,200 00
Nov. 6.....	Public Pk. Sink. Fund No. 2	7,300 00	New Sewerage Impt. 3½% 1980 Loan..	7,300 00
Nov. 6.....	Burnt Dist. Impt. 1954 Loan	1,400 00	New Sewerage Impt. 3½% 1980 Loan..	1,400 00
Nov. 6.....	Public Impt. 1940 Loan....	1,400 00	New Sewerage Impt. 3½% 1980 Loan..	1,400 00
Nov. 6.....	Internal Impt. 1928 Loan.	5,300 00	New Sewerage Impt. 3½% 1980 Loan..	5,300 00
Nov. 6.....	Refunding 1940 Loan.....	900 00	New Sewerage Impt. 3½% 1980 Loan..	900 00
Nov. 6.....	Four Million 1945 Loan...	400 00	New Sewerage Impt. 3½% 1980 Loan..	400 00
Nov. 6.....	Conduit 1922 Loan.....	900 00	New Sewerage Impt. 3½% 1980 Loan..	900 00
Nov. 6.....	School House 1961 Loan..	300 00	New Sewerage Impt. 3½% 1980 Loan..	300 00
Nov. 6.....	Funding 1936 Loan.....	400 00	New Sewerage Impt. 3½% 1980 Loan..	400 00
Nov. 6.....	Conduit 1958 Loan.....	400 00	New Sewerage Impt. 3½% 1980 Loan..	400 00
Nov. 6.....	Conduit 1928 Loan.....	600 00	New Sewerage Impt. 3½% 1980 Loan..	600 00
Nov. 6.....	Public Pk. Impt. 1955 Loan	300 00	New Sewerage Impt. 3½% 1980 Loan..	300 00
Nov. 6.....	Water 1922 Loan.....	1,600 00	New Sewerage Impt. 3½% 1980 Loan..	1,600 00
Nov. 6.....	New Eng. House 1957 Loan.	400 00	New Sewerage Impt. 3½% 1980 Loan.	400 00
Nov. 6.....	New Schl. House 1957 Loan	400 00	New Sewerage Impt. 3½% 1980 Loan.	400 00
Nov. 6.....	Water 1926 Loan.....	3,600 00	New Sewerage Impt. 3½% 1980 Loan..	3,600 00

Nov.	6.....	Water 1958 Loan.....	100 00	New Sewerage Impt. 3½% 1980 Loan..	100 00
Nov.	6.....	Annex Impt. 1954 Loan...	800 00	New Sewerage Impt. 3½% 1980 Loan..	800 00
Nov.	6.....	Dock Impt. 1961 Loan....	300 00	New Sewerage Impt. 3½% 1980 Loan..	300 00
Nov.	6.....	Water 1916 Loan.....	22,600 00	New Sewerage Impt. 3½% 1980 Loan..	22,000 00
Nov.	6.....	Burnt Dist. Impt. 1960 Loan	300 00	New Sewerage Impt. 3½% 1980 Loan..	300 00
Nov.	6.....	Water 1943 Loan.....	1,300 00	New Sewerage Impt. 3½% 1980 Loan..	1,300 00
Dec.	6.....	General Sinking Fund....	10,200 00	New Sewerage Impt. 3½% 1980 Loan..	10,200 00
Dec.	6.....	Public Pk. Sink. Fund No. 2	1,200 00	New Sewerage Impt. 3½% 1980 Loan..	1,200 00
Dec.	6.....	Burnt Dist. Impt. 1954 Loan	5,200 00	New Sewerage Impt. 3½% 1980 Loan..	5,200 00
Dec.	6.....	Public Impt. 1940 Loan...	5,500 00	New Sewerage Impt. 3½% 1980 Loan..	5,500 00
Dec.	6.....	Internal Impt. 1928 Loan..	7,800 00	New Sewerage Impt. 3½% 1980 Loan..	7,800 00
Dec.	6.....	Refunding 1940 Loan.....	4,800 00	New Sewerage Impt. 3½% 1980 Loan..	4,800 00
Dec.	6.....	Four Million 1945 Loan...	1,500 00	New Sewerage Impt. 3½% 1980 Loan..	1,500 00
Dec.	6.....	Jones' Falls Impt. 1961 Loan	1,000 00	New Sewerage Impt. 3½% 1980 Loan..	1,000 00
Dec.	6.....	Conduit 1922 Loan.....	2,400 00	New Sewerage Impt. 3½% 1980 Loan..	2,400 00
Dec.	6.....	Funding 1936 Loan.....	2,000 00	New Sewerage Impt. 3½% 1980 Loan..	2,000 00
Dec.	6.....	Conduit 1928 Loan.....	1,500 00	New Sewerage Impt. 3½% 1980 Loan..	1,500 00
Dec.	6.....	Public Pk. Impt. 1955 Loan	700 00	New Sewerage Impt. 3½% 1980 Loan..	700 00
Dec.	6.....	Water 1922 Loan.....	1,500 00	New Sewerage Impt. 3½% 1980 Loan..	1,500 00
Dec.	6.....	New Eng. House 1957 Loan	300 00	New Sewerage Impt. 3½% 1980 Loan..	300 00
Dec.	6.....	Water 1943 Loan.....	700 00	New Sewerage Impt. 3½% 1980 Loan..	700 00
Dec.	6.....	New Schl. House 1957 Loan	300 00	New Sewerage Impt. 3½% 1980 Loan..	300 00
Dec.	6.....	Water 1926 Loan.....	2,900 00	New Sewerage Impt. 3½% 1980 Loan..	2,900 00
Dec.	6.....	Annex Impt. 1954 Loan...	1,500 00	New Sewerage Impt. 3½% 1980 Loan..	1,500 00
Dec.	6.....	Water 1916 Loan.....	6,200 00	New Sewerage Impt. 3½% 1980 Loan..	6,200 00
Dec.	6.....	New Sew. Impt. 1980 Loan.	1,200 00	New Sewerage Impt. 3½% 1980 Loan..	1,200 00
			$1,478,265 70		$1,473,462 88

*Purchased from W. M. R. R. Sinking Fund, February 17, 1911.

RECAPITULATION.

Sinking Fund.	Amount Purchased.	Description of Stock.	Amount Paid.
General Sinking Fund	$152,600 00	New Sewerage Improvement 3½% 1980 Loan	$152,600 00
General Sinking Fund	4,600 00	W. M. R. R. 3¼% 1927 Loan	4,003 26
General Sinking Fund	32,265 70	Consolidated 3½% 1930 Loan	30,335 98
General Sinking Fund	35,000 00	General Fund Bonds ¼ of 1% 1955 Loan	35,000 00
Public Park Sinking Fund No. 2	38,600 00	New Sewerage Improvement 3½% 1980 Loan	38,237 44
Water 1916 Loan	173,100 00	New Sewerage Improvement 3½% 1980 Loan	173,100 00
Water 1922 Loan	34,900 00	New Sewerage Improvement 3½% 1980 Loan	34,900 00
Water 1926 Loan	34,500 00	New Sewerage Improvement 3½% 1980 Loan	34,500 00
Water 1926 Loan	34,000 00	General Fund Bonds ¼ of 1% 1955 Loan	34,000 00
Water 1943 Loan	21,000 00	New Sewerage Improvement 3½% 1980 Loan	21,000 00
Water 1958 Loan	41,600 00	New Sewerage Improvement 3½% 1980 Loan	41,600 00
Conduit 1922 Loan	25,600 00	New Sewerage Improvement 3½% 1980 Loan	25,600 00
Conduit 1922 Loan	15,000 00	Conduit 3½% 1922 Loan	14,411 04
Conduit 1922 Loan	11,000 00	General Fund Bonds ¼ of 1% 1955 Loan	11,000 00
Conduit 1928 Loan	33,800 00	New Sewerage Improvement 3½% 1980 Loan	33,800 00
Conduit 1928 Loan	11,000 00	General Fund Bonds ¼ of 1% 1955 Loan	11,000 00
Conduit 1958 Loan	12,500 00	New Sewerage Improvement 3½% 1980 Loan	12,500 00
Internal Impt. 1928 Loan	114,200 00	New Sewerage Improvement 3½% 1980 Loan	114,200 00
Internal Impt. 1928 Loan	2,600 00	Internal Improvement 3½% 1928 Loan	2,462 70
Internal Impt. 1928 Loan	80,000 00	General Fund Bonds ¼ of 1% 1955 Loan	80,000 00
Funding 1936 Loan	28,600 00	New Sewerage Improvement 3½% 1980 Loan	28,600 00
Funding 1936 Loan	1,000 00	Funding 3½% 1936 Loan	938 36
Funding 1936 Loan	26,000 00	General Fund Bonds ¼ of 1% 1955 Loan	26,000 00
Public Impt. 1940 Loan	83,300 00	New Sewerage Improvement 3½% 1980 Loan	83,300 00
Public Impt. 1940 Loan	14,200 00	Public Improvement 3½% 1940 Loan	13,211 43
Public Impt. 1940 Loan	21,000 00	General Fund Bonds ¼ of 1% 1955 Loan	21,000 00
Refunding 1940 Loan	69,700 00	New Sewerage Improvement 3½% 1980 Loan	69,700 00

Refunding 1940 Loan	700 00	Refunding 3½% 1940 Loan	658 60
Refunding 1940 Loan	45,000 00	General Fund Bonds ¼ of 1% 1955 Loan	45,000 00
Four Million 1945 Loan	36,200 00	New Sewerage Improvement 3½% 1980 Loan	36,200 00
Annex Impt. 1954 Loan	23,500 00	New Sewerage Improvement 3½% 1980 Loan	23,500 00
Burnt District Impt. 1954 Loan	52,500 00	New Sewerage Improvement 3½% 1980 Loan	52,500 00
Burnt District Impt. 1954 Loan	37,000 00	General Fund Bonds ¼ of 1% 1955 Loan	37,000 00
Burnt District Impt. 1960 Loan	8,400 00	New Sewerage Improvement 3½% 1980 Loan	8,400 00
Public Park Impt. 1955 Loan	11,200 00	New Sewerage Improvement 3½% 1980 Loan	11,200 00
New Engine House 1957 Loan	11,100 00	New Sewerage Improvement 3½% 1980 Loan	11,100 00
New School House 1957 Loan	11,100 00	New Sewerage Improvement 3½% 1980 Loan	11,100 00
School House 1961 Loan	17,400 00	New Sewerage Improvement 3½% 1980 Loan	17,400 00
Jones' Falls Impt. 1961 Loan	8,600 00	New Sewerage Improvement 3½% 1980 Loan	8,600 00
Dock Impt. 1961 Loan	17,700 00	New Sewerage Improvement 3½% 1980 Loan	17,700 00
New Sewerage Impt. 1980 Loan	46,200 00	New Sewerage Improvement 3½% 1980 Loan	46,104 07
	$1,478,265 70		$1,473,462 88
*Purchased from W. M. R. R. Sinking Fund, February 17, 1911	13,700 00		12,741 00
	$1,464,565 70		$1,460,721 88

STATEMENT No. 3.

Condition of the Sinking Funds December 31, 1911.

General Sinking Fund.

(For redemption of $7,232,179.50 of various loans, viz.: Funding 5% 1916 Loan; $280,000 McDonogh Extension 5% 1916 Loan; $250,000 Harford Run 4% 1920 Loan; $200,000 Patterson Park Extension 4% 1920 Loan; $500,000 Paving 4% 1920 Loan; $5,000,000 Consolidated 3½% 1930 Loan, and $2,179.50 of overdue stock.)		$1,000,000
Water 5% 1916 Loan	$33,000 00	
Funding 5% 1916 Loan	30,700 00	
		$63,700 00
Harford Run 4% 1920 Loan	$12,000 00	
Paving 4% 1920 Loan	3,000 00	
Patterson Park Extension 4% 1920 Loan	5,000 00	
Water 4% 1926 Loan	500 00	
W. M. R. R. 4% 1925 Loan	36,600 00	
		57,100 00
Conduit 3½% 1922 Loan	$240,000 00	
Conduit 3½% 1928 Loan	116,100 00	
Consolidated 3½% 1930 Loan	153,959 97	
Funding 3½% 1936 Loan	15,000 00	
Public Improvement 3½% 1940 Loan	666,400 00	
Refunding 3½% 1940 Loan	353,000 00	
Water 3½% 1943 Loan	60,500 00	
Four Million 3½% 1945 Loan	548,200 00	
W. M. R. R. Refunding 3½% 1952 Loan	100,000 00	
Burnt District Improvement 3½% 1954 Loan	487,600 00	
New Sewerage Improvement 3½% 1980 Loan	421,300 00	
		3,162,059 97
W. M. R. R. 3¼% 1927 Loan		477,200 00
General Fund Bonds ¼ of 1% 1955 Loan		35,000 00
Real estate from which an annual income of $4,781.88 is derived, capitalized at 6%		79,698 00
Ground rents on city property from which an annual income of $27,503.20 is derived, and purchased under Ordinance No. 81, 1881, cost		477,139 46
Cash		3,749 25
		$4,355,646 68

PUBLIC PARK SINKING FUND NO. 2.

(For redemption of $1,000,000 of the Four Million 3½% 1945 Loan, maturing March 1, 1945, issued for the purchase of land and improving same for public park purposes.)

Water 5% 1916 Loan		$3,700 00
W. M. R. R. 4% 1925 Loan		3,000 00
Conduit 3½% 1922 Loan	$23,000 00	
Conduit 3½% 1928 Loan	19,100 00	
Consolidated 3½% 1930 Loan	3,000 00	
Funding 3½% 1936 Loan	15,000 00	
Public Improvement 3½% 1940 Loan	21,700 00	
Refunding 3½% 1940 Loan	9,500 00	
Water 3½% 1943 Loan	22,900 00	
Four Million 3½% 1945 Loan	60,400 00	
W. M. R. R. 3½% 1950 Loan	10,000 00	
Burnt District Improvement 3½% 1954 Loan	67,800 00	
New Sewerage Improvement 3½% 1980 Loan	90,200 00	
		342,600 00
W. M. R. R. 3¼% 1927 Loan		15,300 00
Cash		85 84
		$364,685 84

W. M. R. R. SINKING FUND.

(For redemption of $4,263,000 W. M. R. R. Loans, viz.: $684,000 due July 1, 1925; $1,704,000 3¼% due January 1, 1927; $875,000 3½% due March 1, 1950, and $1,000,000 3½% due January 1, 1952; all of which loans were issued in aid of the Western Maryland Railroad.)

The interest derived from the investments of this fund is applied to the payment of the annual interest on the above-named outstanding loans.

The four million two hundred and sixty-three thousand dollars of certificates of deposit, named below, are secured by equal amount of Baltimore city stock as collateral.

Water 4% 1926 Loan		$50,000 00
Consolidated 3½% 1930 Loan	$1,700 00	
Refunding 3½% 1940 Loan	7,000 00	
Four Million 3½% 1945 Loan	14,500 00	
		23,200 00
W. M. R. R. 3¼% 1927 Loan		123,000 00
Amount carried forward		$196,200 00

Amount brought forward		$196,200 00
Certificate of deposit Mercantile Trust and Deposit Company of Baltimore at 3¼% per annum	$1,979,000 00	
Certificate of deposit Baltimore Trust Company at 3¼% per annum	1,184,000 00	
Certificate of deposit Security Storage and Trust Company of Baltimore at 3¼% per annum	60,000 00	
Certificate of deposit American Bonding Company of Baltimore at 3¼% per annum	200,000 00	
Certificate of deposit The National Bank of Baltimore at 3¼% per annum	500,000 00	
Certificate of deposit National Bank of Commerce of Baltimore at 3¼% per annum	340,000 00	
		4,263,000 00
Cash		10,838 18
		$4,470,038 18

WATER 1916 LOAN SINKING FUND.

(For redemption of $5,000,000 5% stock, maturing July 1, 1916, issued for the purpose of improving and extending the water supply.)

Water 5% 1916 Loan	$806,300 00	
Funding 5% 1916 Loan	33,600 00	
		$839,900 00
Conduit 3½% 1922 Loan	$83,000 00	
Conduit 3½% 1928 Loan	121,900 00	
Consolidated 3½% 1930 Loan	50,000 00	
Public Improvement 3½% 1940 Loan	104,200 00	
Refunding 3½% 1940 Loan	117,000 00	
Water 3½% 1943 Loan	121,400 00	
Four Million 3½% 1945 Loan	466,000 00	
W. M. R. R. 3½% 1952 Loan	100,000 00	
Burnt District Improvement 3½% 1954 Loan	318,600 00	
New Sewerage Improvement 3½% 1980 Loan	371,600 00	
		1,853,700 00
W. M. R. R. 3¼% 1927 Loan		60,900 00
Cash		1,449 46
		$2,755,949 46

WATER 1922 LOAN SINKING FUND.

(For redemption of $500,000 4% stock, maturing November 1, 1922, issued for the purpose of improving and extending the water supply.)

Water 5% 1916 Loan		$22,600 00
W. M. R. R. 4% 1925 Loan		4,000 00
Conduit 3½% 1922 Loan	$38,000 00	
Conduit 3½% 1928 Loan	25,300 00	
Public Improvement 3½% 1940 Loan	161,700 00	
Refunding 3½% 1940 Loan	15,000 00	
Water 3½% 1943 Loan	24,500 00	
Four Million 3½% 1945 Loan	56,600 00	
W. M. R. R. 3½% 1950 Loan	10,000 00	
Burnt District Improvement 3½% 1954 Loan	83,100 00	
New Sewerage Improvement 3½% 1980 Loan	70,600 00	
		484,800 00
W. M. R. R. 3¼% 1927 Loan		13,900 00
Cash		500 73
		$525,800 73

WATER 1926 LOAN SINKING FUND.

(For redemption of $1,000,000 4% stock, maturing November 1, 1926, issued for the purpose of improving and extending the water supply.)

Water 5% 1916 Loan	$109,000 00	
Funding 5% 1916 Loan	3,100 00	
		$112,100 00
Harford Run 4% 1920 Loan	$3,800 00	
W. M. R. R. 4% 1925 Loan	10,800 00	
Water 4% 1926 Loan	21,000 00	
		35,600 00
Conduit 3½% 1922 Loan	$88,000 00	
Conduit 3½% 1928 Loan	76,800 00	
Internal Improvement 3½% 1928 Loan	10,000 00	
Consolidated 3½% 1930 Loan	31,600 00	
Public Improvement 3½% 1940 Loan	160,600 00	
Refunding 3½% 1940 Loan	30,000 00	
Water 3½% 1943 Loan	32,000 00	
Four Million 3½% 1943 Loan	97,700 00	
Burnt District Improvement 3½% 1954 Loan	144,200 00	
New Sewerage Improvement 3½% 1980 Loan	108,700 00	
		779,600 00
Amount carried forward		$927,300 00

Amount brought forward		$927,300 00
W. M. R. R. 3¼% 1927 Loan		39,300 00
General Fund Bonds ¼ of 1% 1955 Loan		34,000 00
Cash		703 56
		$1,001,303 56

WATER 1943 LOAN SINKING FUND.

(For redemption of $1,000,000 3½% stock, maturing January 1, 1943, issued for the purpose of improving and extending the water supply.)

Water 5% 1916 Loan	$9,400 00	
Funding 5% 1916 Loan	4,700 00	
		$14,100 00
Conduit 3½% 1928 Loan	5,600 00	
Water 3½% 1943 Loan	27,400 00	
Four Million 3½% 1945 Loan	15,000 00	
Burnt District Improvement 3½% 1954 Loan	39,800 00	
New Sewerage Improvement 3½% 1980 Loan	42,200 00	
		130,000 00
Cash		32 78
		$144,132 78

WATER 1958 LOAN SINKING FUND.

(For redemption of $5,000,000 4% stock, maturing December 1, 1958, to be issued for improving and extending the water supply.)

New Sewerage Improvement 3½% 1980 Loan	$118,700 00
Cash	30 25
	$118,730 25

CONDUIT 1922 LOAN SINKING FUND.

(For redemption of $1,000,000 3½% stock, maturing January 1, 1922, issued for the purpose of constructing underground conduits for electrical wires.)

W. M. R. R. 4% 1925 Loan		$26,000 00
Conduit 3½% 1922 Loan	$146,000 00	
Conduit 3½% 1928 Loan	43,800 00	
Internal Improvement 3½% 1928 Loan	20,000 00	
Consolidated 3½% 1930 Loan	3,300 00	
Amounts carried forward	$213,100 00	$26,000 00

Amounts brought forward	$213,100 00	$26,000 00
Funding 3½% 1936 Loan	20,000 00	
Refunding 3½% 1940 Loan	5,000 00	
Water 3½% 1943 Loan	29,900 00	
Four Million 3½% 1945 Loan	19,000 00	
Burnt District Improvement 3½% 1954 Loan	115,100 00	
New Sewerage Improvement 3½% 1980 Loan	76,700 00	
		478,800 00
General Fund Bonds ¼ of 1% 1955 Loan		11,000 00
Cash		690 70
		$516,490 70

CONDUIT 1928 LOAN SINKING FUND.

(For redemption of $1,000,000 3½% stock, maturing January 1, 1928, issued for the purpose of constructing underground conduits for electrical wires.)

W. M. R. R. 4% 1925 Loan		$28,000 00
Conduit 3½% 1928 Loan	$125,900 00	
Internal Improvement 3½% 1928 Loan	10,300 00	
Water 3½% 1943 Loan	23,000 00	
Burnt District Improvement 3½% 1954 Loan	74,300 00	
New Sewerage Improvement 3½% 1980 Loan	77,200 00	
		310,700 00
General Fund Bonds ¼ of 1% 1955 Loan		11,000 00
Cash		881 78
		$350,581 78

CONDUIT 1958 LOAN SINKING FUND.

(For redemption of $1,000,000 4% stock, maturing December 1, 1958, issued for the purpose of constructing underground conduits for electrical wires.)

Water 3½% 1943 Loan	$10,100 00	
Burnt District Improvement 3½% 1954 Loan	7,600 00	
New Sewerage Improvement 3½% 1980 Loan	23,700 00	
		$41,400 00
Cash		196 50
		$41,596 50

INTERNAL IMPROVEMENT 1928 LOAN SINKING FUND.

(For redemption of $4,850,000 3½% stock, maturing July 1, 1928, issued for the purpose of rebuilding old sewers and establishing a new sewerage system; extension of existing and establishing new public parks; opening, widening, paving and repaving streets; new school buildings and additions to old ones, and for new bridges and rebuilding old ones.)

Water 5% 1916 Loan	$128,000 00	
Funding 5% 1916 Loan	8,900 00	
		$136,900 00
Harford Run 4% 1920 Loan	$7,700 00	
W. M. R. R. 4% 1925 Loan	10,300 00	
		18,000 00
Conduit 3½% 1922 Loan	$50,000 00	
Conduit 3½% 1928 Loan	129,400 00	
Internal Improvement 3½% 1928 Loan	390,500 00	
Consolidated 3½% 1930 Loan	49,800 00	
Funding 3½% 1936 Loan	5,000 00	
Public Improvement 3½% 1940 Loan	478,100 00	
Refunding 3½% 1940 Loan	80,000 00	
Water 3½% 1943 Loan	112,900 00	
Four Million 3½% 1945 Loan	347,500 00	
Burnt District Improvement 3½% 1954 Loan	394,300 00	
New Sewerage Improvement 3½% 1980 Loan	369,100 00	
		2,406,600 00
W. M. R. R. 3¼% 1927 Loan		212,000 00
General Fund Bonds ¼ of 1% 1955 Loan		80,000 00
Cash		2,144 89
		$2,855,644 89

FUNDING 1936 LOAN SINKING FUND.

(For redemption of $1,453,300 3½% stock, maturing July 1, 1936.)

Harford Run 4% 1920 Loan	$500 00	
W. M. R. R. 4% 1925 Loan	4,000 00	
		$4,500 00
Conduit 3½% 1922 Loan	$20,000 00	
Conduit 3½% 1928 Loan	41,100 00	
Consolidated 3½% 1930 Loan	400 00	
Funding 3½% 1936 Loan	51,000 00	
Public Improvement 3½% 1940 Loan	58,300 00	
Refunding 3½% 1940 Loan	20,000 00	
Amounts carried forward	$190,800 00	$4,500 00

Amounts brought forward	$190,800 00	$4,500 00
Water 3½% 1943 Loan	34,800 00	
Four Million 3½% 1945 Loan	164,400 00	
W. M. R. R. 3½% 1950 Loan	20,000 00	
Burnt District Improvement 3½% 1954 Loan	105,500 00	
New Sewerage Improvement 3½% 1980 Loan	108,200 00	
		623,700 00
W. M. R. R. 3¼% 1927 Loan		18,000 00
General Fund Bonds ¼ of 1% 1955 Loan		26,000 00
Cash		856 19
		$673,056 19

PUBLIC IMPROVEMENT 1940 LOAN SINKING FUND.

(For redemption of $6,000,000 3½% stock, maturing January 1, 1940, issued for the purpose of rebuilding old sewers and establishing a new sewerage system; opening, widening and paving streets; construction of underground conduits for electric wires; construction of new school buildings and additions to old ones; constructing new bridges and reconstructing old ones; construction of a new Court House, and for a topographical survey of the city.)

Water 5% 1916 Loan		$10,000 00
Harford Run 4% 1920 Loan	$3,600 00	
Water 4% 1926 Loan	1,500 00	
W. M. R. R. 4% 1925 Loan	600 00	
		5,700 00
Conduit 3½% 1922 Loan	$25,000 00	
Conduit 3½% 1928 Loan	40,600 00	
Consolidated 3½% 1930 Loan	40,800 00	
Funding 3½% 1936 Loan	20,000 00	
Public Improvement 3½% 1940 Loan	508,500 00	
Refunding 3½% 1940 Loan	50,000 00	
Water 3½% 1943 Loan	66,600 00	
Four Million 3½% 1945 Loan	162,500 00	
W. M. R. R. 3½% 1952 Loan	3,000 00	
Burnt District Improvement 3½% 1954 Loan	261,600 00	
New Sewerage Improvement 3½% 1980 Loan	232,700 00	
		1,411,300 00
W. M. R. R. 3¼% 1927 Loan		66,000 00
General Fund Bonds ¼ of 1% 1955 Loan		21,000 00
Cash		1,414 68
		$1,515,414 68

Refunding 1940 Loan Sinking Fund.

(For redemption of $4,300,000 3½% stock, maturing January 1, 1940, issued for the purpose of funding a floating debt existing in 1870; improving Jones Falls, and building a new City Hall.)

Conduit 3½% 1922 Loan	$52,000 00	
Conduit 3½% 1928 Loan	73,500 00	
Consolidated 3½% 1930 Loan	3,000 00	
Funding 3½% 1936 Loan	10,000 00	
Public Improvement 3½% 1940 Loan	74,000 00	
Refunding 3½% 1940 Loan	575,100 00	
Water 3½% 1943 Loan	61,600 00	
Four Million 3½% 1945 Loan	88,600 00	
Burnt District Improvement 3½% 1954 Loan	240,500 00	
New Sewerage Improvement 3½% 1980 Loan	215,900 00	
		1,394,200 00
W. M. R. R. 3¼% 1927 Loan		31,300 00
General Fund Bonds ¼ of 1% 1955 Loan		45,000 00
Cash		1,433 84
		$1,471,933 84

Four Million 1945 Loan Sinking Fund.

(For redemption of $3,000,000 of the Four Million 3½% 1945 Loan, maturing March 1, 1945; $2,000,000 was issued for the purpose of improving and extending the water supply and $1,000,000 for the completion of the new Court House. The redemption of the remaining $1,000,000 is provided for by Public Park Sinking Fund No. 2.)

W. M. R. R. 4% 1925 Loan		$3,000 00
Conduit 3½% 1928 Loan	$39,700 00	
Funding 3½% 1936 Loan	10,000 00	
Public Improvement 3½% 1940 Loan	120,200 00	
Refunding 3½% 1940 Loan	12,000 00	
Water 3½% 1943 Loan	17,400 00	
Four Million 3½% 1945 Loan	182,000 00	
W. M. R. R. 3½% 1950 Loan	10,000 00	
Burnt District Improvement 3½% 1954 Loan	80,500 00	
New Sewerage Improvement 3½% 1980 Loan	81,600 00	
		553,400 00
W. M. R. R. 3¼% 1927 Loan		10,000 00
Cash		458 48
		$566,858 48

Paving 1951 Loan Sinking Fund.

(For redemption of $5,000,000 4% stock, maturing August 1, 1951, issued for the purpose of providing new and improved paving for streets, etc.)

Cash	$2,246 46

Annex Improvement 1954 Loan Sinking Fund.

(For redemption of $2,000,000 4% stock, maturing June 1, 1954, issued for the purpose of condemning, opening, widening and paving streets, avenues, alleys, etc., in the Annex portion of the city.)

Conduit 3½% 1928 Loan	$2,200 00	
Water 3½% 1943 Loan	30,600 00	
Burnt District Improvement 3½% 1954 Loan	87,900 00	
New Sewerage Improvement 3½% 1980 Loan	47,800 00	
		$168,500 00
Cash		118 15
		$168,618 15

Burnt District Improvement 1954 Loan Sinking Fund.

(For redemption of $6,000,000 3½% stock, maturing June 1, 1954, issued for the purpose of opening, widening, straightening and paving streets, etc., and establishing public wharves and docks as planned by the Burnt District Commission.)

Water 5% 1916 Loan		$10,000 00
Conduit 3½% 1928 Loan	$29,300 00	
Consolidated 3½% 1930 Loan	9,700 00	
Water 3½% 1943 Loan	170,700 00	
Burnt District Improvement 3½% 1954 Loan	268,800 00	
New Sewerage Improvement 3½% 1980 Loan	141,600 00	
		620,100 00
W. M. R. R. 3¼% 1927 Loan		37,900 00
General Fund Bonds ¼ of 1% 1955 Loan		37,000 00
Cash		1,496 90
		$706,496 90

BURNT DISTRICT IMPROVEMENT 1960 LOAN SINKING FUND

(For redemption of $685,000 4% stock, maturing April 1, 1960, issued for the purpose of completing the city docks and piers as planned by the Burnt District Commission.)

New Sewerage Improvement 3½% 1980 Loan		$16,000 00
Cash		65 75
		$16,065 75

PUBLIC PARK IMPROVEMENT 1955 LOAN SINKING FUND.

(For redemption of $1,000,000 4% stock, maturing May 1, 1955, issued for the purchase of land and the improvement of same for public park purposes.)

Conduit 3½% 1928 Loan	$900 00	
Water 3½% 1943 Loan	1,300 00	
Burnt District Improvement 3½% 1954 Loan	35,900 00	
New Sewerage Improvement 3½% 1980 Loan	21,700 00	
		$59,800 00
Cash		16 75
		$59,816 75

NEW ENGINE HOUSE 1957 LOAN SINKING FUND.

(For the redemption of $1,000,000 4% stock, maturing June 1, 1957, issued for the purpose of acquiring land for new fire engine houses and reconstructing old ones.)

Conduit 3½% 1928 Loan	$700 00	
Water 3½% 1943 Loan	25,800 00	
Burnt District Improvement 3½% 1954 Loan	17,600 00	
New Sewerage Improvement 3½% 1980 Loan	22,200 00	
		$66,300 00
Cash		66 00
		$66,366 00

New School House 1957 Loan Sinking Fund.

(For the redemption of $1,000,000 4% stock, maturing June 1, 1957, issued for the purpose of acquiring land for new school houses and reconstructing old ones.)

Conduit 3½% 1928 Loan	$700 00	
Water 3½% 1943 Loan	25,800 00	
Burnt District Improvement 3½% 1954 Loan	17,600 00	
New Sewerage Improvement 3½% 1980 Loan	22,200 00	
		$66,300 00
Cash		66 00
		$66,366 00

School House 1961 Loan Sinking Fund.

(For redemption of $1,500,000 4% stock, maturing March 1, 1961, issued for the purpose of acquiring land for and the construction of public school buildings.)

New Sewerage Improvement 3½% 1980 Loan	$17,400 00
Cash	56 25
	$17,456 25

Jones' Falls Improvement 1961 Loan Sinking Fund.

(For redemption of $1.000.000 4% stock, maturing March 1, 1961, issued for the purpose of opening, constructing and establishing a public highway over and along Jones Falls in the City of Baltimore.)

New Sewerage Improvement 3½% 1980 Loan	$8,600 00
Cash	100 00
	$8,700 00

Dock Improvement 1961 Loan Sinking Fund.

(For redemption of $2,000,000 4% stock, maturing March 1, 1961, issued for the purpose of constructing and establishing city docks and piers along the Patapsco River and its tributaries.)

New Sewerage Improvement 3½% 1980 Loan	$17,700 00
Cash	4 50
	$17,704 50

New Sewerage Improvement 1980 Loan Sinking Fund.

(For redemption of $10,000,000 3½% stock, maturing October 1, 1980, issued for the purpose of projecting, constructing and establishing a new sewerage system.)

Conduit 3½% 1928 Loan	$3,500 00	
Water 3½% 1943 Loan	7,600 00	
Burnt District Improvement 3½% 1954 Loan	149,100 00	
New Sewerage Improvement 3½% 1980 Loan	92,600 00	
		$252,800 00
Cash		56 23
		$252,856 23

Fund for Redemption Five Million 1890 Loan.

(For redemption of outstanding Five Million Loan to Baltimore and Ohio Railroad Company, due January 1, 1890; no interest allowed.)

Cash	$1,903 45

RECAPITULATION.

Face Value of the Sinking Funds.

General Sinking Fund	$4,355,646 68
Public Park Sinking Fund No. 2	364,685 84
W. M. R. R. Sinking Fund	4,470,038 18
Water 1916 Loan Sinking Fund	2,755,949 46
Water 1922 Loan Sinking Fund	525,800 73
Water 1926 Loan Sinking Fund	1,001,303 56
Water 1943 Loan Sinking Fund	144,132 78
Water 1958 Loan Sinking Fund	118,730 25
Conduit 1922 Loan Sinking Fund	516,490 70
Conduit 1928 Loan Sinking Fund	350,581 78
Conduit 1958 Loan Sinking Fund	41,596 50
Internal Improvement 1928 Loan Sinking Fund	2,855,644 89
Funding 1936 Loan Sinking Fund	673,056 19
Public Improvement 1940 Loan Sinking Fund	1,515,414 68
Refunding 1940 Loan Sinking Fund	1,471,933 84
Four Million 1945 Loan Sinking Fund	566,858 48
Paving 1951 Loan Sinking Fund	2,246 46
Annex Improvement 1954 Loan Sinking Fund	168,618 15
Burnt District Improvement 1954 Loan Sinking Fund	706,496 90
Burnt District Improvement 1960 Loan Sinking Fund	16,065 75
Public Park Improvement 1955 Loan Sinking Fund	59,816 75
New Engine House 1957 Loan Sinking Fund	66,366 00
New School House 1957 Loan Sinking Fund	66,366 00
School House 1961 Loan Sinking Fund	17,456 25
Jones' Falls Improvement 1961 Loan Sinking Fund	8,700 00
Dock Improvement 1961 Loan Sinking Fund	17,704 50
New Sewerage Improvement 1980 Loan Sinking Fund	252,856 23
Redemption, Five Million 1890 Loan	1,903 45
	$23,112,460 98

Summary of the Sinking Funds.

Baltimore city registered stock	$18,260,959 97
Certificates of deposit in Baltimore city trust companies and national banks secured by Baltimore city stock	4,263,000 00
Ground rents (cost)	477,139 46
Real estate (capitalized at 6%)	79,698 00
Cash deposited in national banks, etc	31,663 55
	$23,112,460 98

STATEMENT No. 4.

Enoch Pratt Free Library Fund.

(Held in trust by the Commissioners of Finance under Ordinance No. 106, 1882, for the purpose of creating (in part) an annuity to be paid forever, in equal quarterly installments, for the purposes and maintenance of Enoch Pratt Free Library of Baltimore City.)

Water 5% 1916 Loan	$54,300 00	
Funding 5% 1916 Loan	2,500 00	
		$56,800 00
Paving 4% 1920 Loan	$62,300 00	
Patterson Park 4% 1920 Loan	195,000 00	
Harford Run 4% 1920 Loan	900 00	
Water 4% 1922 Loan	500,000 00	
W. M. R. R. 4% 1925 Loan	2,100 00	
Water 4% 1926 Loan	1,000 00	
		761,300 00
Internal Improvement 3½% 1928 Loan	$13,200 00	
Consolidated 3½% 1930 Loan	113,200 00	
Public Improvement 3½% 1940 Loan	42,700 00	
Refunding 3½% 1940 Loan	145,100 00	
Four Million 3½% 1945 Loan	37,800 00	
		352,000 00
W. M. R. R. 3¼% 1927 Loan		4,000 00
		$1,174,100 00

STATEMENT No. 5.

Horwitz Benevolent Fund.

(Held in trust by the Commissioners of Finance under Resolution No. 7, 1881; the income from which shall be distributed annually by the Mayor in aid of the support of twelve poor families of the City of Baltimore in such proportions as he may deem just.)

Water 5% 1916 Loan	$400 00	
Funding 5% 1916 Loan	2,600 00	
		$3,000 00
W. M. R. R. 4% 1925 Loan		300 00
Amount carried forward		$3,300 00

Amount brought forward		$3,300 00
Conduit 3½% 1928 Loan	$400 00	
Internal Improvement 3½% 1928 Loan	100 00	
Consolidated 3½% 1930 Loan	1,300 00	
Public Improvement 3½% 1940 Loan	3,000 00	
Refunding 3½% 1940 Loan	6,400 00	
Water 3½% 1943 Loan	700 00	
Four Million 3½% 1945 Loan	1,600 00	
Burnt District Improvement 3½% 1954 Loan	1,100 00	
New Sewerage Improvement 3½% 1980 Loan	600 00	
		15,200 00
W. M. R. R. 3¼% 1927 Loan		1,500 00
Cash		504 15
		$20,504 15

STATEMENT No. 6.

Frederick Raine Fund.

(Held in trust by the Commissioners of Finance under Resolution No. 51, 1897; the income to be used for the purchase of two medals annually—one to be awarded by the Board of School Commissioners to the pupil of the Baltimore City College who shall be adjudged most proficient in the study of the German language and German literature, and the other to be awarded by the Maryland Institute to the pupil who shall be adjudged most proficient in mechanical drawing.)

Public Improvement 3½% 1940 Loan	$400 00

STATEMENT No. 7.

A Schedule of Real Estate and Ground Rents Upon the Books of the Commissioners of Finance.

Lessees.	*Location of Lots.*	*Annual Rental.*
Platt & Co.	Old Fish House property	$1,457 00
Safe Deposit and Trust Co. of Baltimore, trustee for Robert E. Davis	Fayette and Arch streets	48 00
Boys' Home Society	Pleasant and Calvert streets	50 00
W. S. Cahill Company	Old City Yard property	497 25
Amount carried forward		$2,052 25

Lessees.	*Location of Lots.*	*Annual Rental.*
Amount brought forward		$2,052 25
Maryland Dredging and Contracting Company	Old City Yard property	1,800 00
Kate Geraghty	127 Battery avenue	157 50
Dr. John G. Huck	Charles and Weyler streets	75 70
Sophia M. Kelly	Nos. 5, 7 and 9 Weyler street	150 00
Aaron Hess	No. 11 Weyler street	33 60
John Mack	No. 13 Weyler street	19 20
William J. Blair	Nos. 15 and 17 Weyler street	52 64
Ida Young	Nos. 19 and 21 Weyler street	52 64
Esther Gallia	No. 23 Weyler street	26 32
H. Klasmeier	No. 25 Weyler street	25 48
Conrad Kern	No. 27 Weyler street	26 32
Annie A. Derwart, trustee	No. 29 Weyler street	26 32
Mary A. Steen	Nos. 31 and 33 Weyler street	52 64
Bernard Sherry	No. 35 Weyler street	19 20
George Wimmer	No. 37 Weyler street	20 32
Abraham Strauss	Nos. 39 and 41 Weyler street	54 49
Margaret Goetze	No. 43 Weyler street	29 60
Caroline O. Eppley	No. 45 Weyler street	29 60
Augusta C. Pfeil	Light and Weyler streets	78 06
		$4,781 88

(Capitalized at 6 per cent., $79,698.00.)

PURCHASED BY AUTHORITY OF ORDINANCE No. 81, OF 1881.

Boys' Latin School	Park av. nr. Preston st.	$549 00	
Mayor and City Council	Hollins & Monroe sts.	750 00	
Mayor and City Council	Pa. av. and Robert st.	320 00	
Mayor and City Council	Frederick and Fairview avenues	360 00	
Mayor and City Council	Waesche st. near Fremont st.	480 00	
Mayor and City Council	e. s. Caroline st. bet. Lombard and Pratt.	107 33	
Mayor and City Council	Castle street	209 25	
Mayor and City Council	Hanover and Lee sts.	210 00	
Mayor and City Council	Sharp and West sts.	570 00	
Mayor and City Council	Argyle ave. near Lanvale st.	120 00	
Mayor and City Council	Hull and Clement sts.	350 00	
Mayor and City Council	Linden av. & Wilson st	840 00	
Mayor and City Council	Charles and Ostend sts	372 50	
Mayor and City Council	Ann and Chase sts	501 75	
Mayor and City Council	Howard st. opp. Centre st.	1,000 00	
Mayor and City Council	Eden near Hoffman st.	80 00	
Amounts carried forward		$6,799 83	$4,781 88

Lessees.	*Location of Lots.*	*Annual Rental.*	
Amounts brought forward		$6,799 83	$4,781 88
Mayor and City Council...	Broadway and Bank st.	200 00	
Mayor and City Council...	Mosher and Gilmor sts	757 00	
Mayor and City Council...	Northeast Market....	1,200 00	
Mayor and City Council...	Collington Square....	960 00	
Mayor and City Council...	Perkins Spring Square	2,052 00	
Mayor and City Council...	Riverside Park.....	3,770 62	
Mayor and City Council...	Holliday & Fayette sts.	56 00	
Mayor and City Council...	Lexington & Paca sts.	228 00	
Mayor and City Council...	Bond and Chew sts...	130 00	
Mayor and City Council...	Carey st. & Columbia avenue	385 00	
Mayor and City Council...	Chappell st. nr. Carey.	630 00	
Mayor and City Council...	Cross Street Market..	974 00	
Mayor and City Council...	Linden av. & Konig st.	1,155 00	
Mayor and City Council...	Balto. st. nr. Aisquith	300 00	
Mayor and City Council...	Lombard st. nr. High.	150 00	
Mayor and City Council...	Rogers av. and Low st.	540 00	
Mayor and City Council...	e. s. Woodberry lane.	22 50	
Mayor and City Council...	Ann and Aliceanna sts.	22 50	
Mayor and City Council...	York road, Waverly..	75 00	
Mayor and City Council...	Brunswick st. bt. Frederick & Wilkens avs.	61 50	
Mayor and City Council...	Harlem av. & Monroe street	480 00	
Mayor and City Council...	Eastern av. & Streeper street	1,001 00	
Mayor and City Council...	Stiles st. nr. Gough st.	50 00	
Mayor and City Council...	Lehman st. and Milington avenue	240 00	
Mayor and City Council...	Biddle st. nr. Penna. avenue	1,500 00	
Mayor and City Council...	Patterson Park ave. & McElderry st.....	530 00	
Mayor and City Council...	Francis st. nr. Fulton avenue	450 00	
Mayor and City Council...	Chester and Chew sts	829 75	
Mayor and City Council...	Penna. av. nr. Dolphin street	1,147 50	
Mayor and City Council...	Old City Hall, Holliday street	306 00	
Mayor and City Council...	Ramsay & Pulaski sts.	480 00	
			27,503 20
			$32,285 08

(Purchased at a cost of $477,139.46.)

STATEMENT No. 8.

Cash Balances of Funds December 31, 1911.

General Sinking Fund	$3,749 25	
Public Park Sinking Fund No. 2	85 84	
W. M. R. R. Sinking Fund	10,838 18	
Water 1916 Loan Sinking Fund	1,449 46	
Water 1922 Loan Sinking Fund	500 73	
Water 1926 Loan Sinking Fund	703 56	
Water 1943 Loan Sinking Fund	32 78	
Water 1958 Loan Sinking Fund	30 25	
Conduit 1922 Loan Sinking Fund	690 70	
Conduit 1928 Loan Sinking Fund	881 78	
Conduit 1958 Loan Sinking Fund	196 50	
Internal Improvement 1928 Loan Sinking Fund	2,144 89	
Funding 1936 Loan Sinking Fund	856 19	
Public Improvement 1940 Loan Sinking Fund	1,414 68	
Refunding 1940 Loan Sinking Fund	1,433 84	
Four Million 1945 Loan Sinking Fund	458 48	
Paving 1951 Loan Sinking Fund	2,246 46	
Annex Improvement 1954 Loan Sinking Fund	118 15	
Burnt District Improvement 1954 Loan Sinking Fund	1,496 90	
Burnt District Improvement 1960 Loan Sinking Fund	65 75	
Public Park Improvement 1955 Loan Sinking Fund	16 75	
New Engine House 1957 Loan Sinking Fund	66 00	
New School House 1957 Loan Sinking Fund	66 00	
School House 1961 Loan Sinking Fund	56 25	
Jones' Falls Improvement 1961 Loan Sinking Fund.	100 00	
Dock Improvement 1961 Loan Sinking Fund	4 50	
New Sewerage Improvement 1980 Loan Sinking Fund	56 23	
Redemption Five Million 1890 Loan	1,903 45	
		$31,663 55
Horwitz Benevolent Fund		504 15
		$32,167 70

STATEMENT No. 9—FUNDED DEBT—DECEMBER 31, 1911.

Checks for interest, as it becomes due, are mailed direct to the holders of Baltimore city stock.

Name of Loan.	Rate.	Interest Periods.	Authority for Issue.	When Redeemable.	Amount Issued.
Water	5 per cent.	May and Nov.	Ord. No. 65, 1877	On or after July 1, 1916	$5,000,000 00
Funding	5 per cent.	May and Nov.	Ord. No. 93, 1878	At pleasure after July 1, 1916	1,000,000 00
McDonogh Extension	5 per cent.	Mar. and Sept.	Ord. No. 157, 1890	September 1, 1916	280,000 00
Harford Run	4 per cent.	Jan. and July	Ord. No. 86, 1879	At pleasure after January 1, 1920	250,000 00
Patterson Park Ext'n	4 per cent.	Quarterly.	Ord. No. 120, 1882	October 1, 1920	200,000 00
Paving	4 per cent.	May and Nov.	Ord. No. 140, 1880	At pleasure after November 1, 1920	500,000 00
Water	4 per cent.	May and Nov.	Ord. No. 91, 1882	At pleasure on or after November 1, 1922	500,000 00
W. M. R. R.	4 per cent.	Jan. and July	Ord. No. 71, 1882	July 1, 1925	684,000 00
Annex Improvement	4 per cent.	June and Dec.	Ord. No. 216, 1905	June 1, 1954	2,000,000 00
Public Park Impt.	4 per cent.	May and Nov.	Ord. No. 228, 1905	May 1, 1955	1,000,000 00
Water	4 per cent.	May and Nov.	Ord. No. 82, 1886	At pleasure on or after November 1, 1926	1,000,000 00
New Engine House	4 per cent.	June and Dec.	Ord. No. 239, 1907	June 1, 1957	1,000,000 00
New School House	4 per cent.	June and Dec.	Ord. No. 240, 1907	June 1, 1957	1,000,000 00
Conduit	4 per cent.	June and Dec.	Ord. No. 142, 1908	December 1, 1958	830,000 00
Burnt District Impt.	4 per cent.	April and Oct.	Ord. No. 391, 1909	April 1, 1960	565,000 00
Jones' Falls Impt.	4 per cent.	Mar. and Sept.	Ord. No. 555, 1910	March 1, 1961	100,000 00
School House	4 per cent.	Mar. and Sept.	Ord. No. 556, 1910	March 1, 1961	500,000 00
Dock Impt.	4 per cent.	Mar. and Sept.	Ord. No. 557, 1910	March 1, 1961	200,000 00
Paving	4 per cent.	Feb. and Aug.	Ord. No. 661, 1911	August 1, 1951	500,000 00
Conduit	3½ per cent.	Jan. and July	Ord. No. 120, 1896	January 1, 1922	1,000,000 00
Amount carried forward					$18,109,000 00

STATEMENT No. 9—FUNDED DEBT—DECEMBER 31, 1911—*Continued.*

Checks for interest, as it becomes due, are mailed direct to the holders of Baltimore city stock.

NAME OF LOAN.	RATE.	INTEREST PERIODS.	AUTHORITY FOR ISSUE.	WHEN REDEEMABLE.	AMOUNT ISSUED.
			Amount brought forward		$18,109,000 00
Conduit	3½ per cent.	Jan. and July	Ord. No. 87, 1902	January 1, 1928	1,000,000 00
Internal Improvement	3½ per cent.	Jan. and July	Ord. No. 98, 1888	July 1, 1928	4,850,000 00
Consolidated	3½ per cent.	Jan. and July	Ord. No. 58, 1890	At pleasure after July 1, 1930	5,000,000 00
Funding	3½ per cent.	Jan. and July	Ord. No. 112, 1896	July 1, 1936	1,453,300 00
Public Improvement	3½ per cent.	Jan. and July	Ord. No. 100, 1892	January 1, 1940	6,000,000 00
Refunding	3½ per cent.	Jan. and July	Ord. No. 32½, 1898	January 1, 1940	4,300,000 00
Water	3½ per cent.	Jan. and July	Ord. No. 86, 1902	At pleasure on or after January 1, 1943	1,000,000 00
Four Million	3½ per cent.	Mar. and Sept.	Ord. No. 137, 1894	March 1, 1945	4,000,000 00
W. M. R. R. Refunding	3½ per cent.	Mar. and Sept.	Ord. No. 18, 1898; Ord. No. 32, 1900	March 1, 1950	875,000 00
W. M. R. R. Refunding	3½ per cent.	Jan. and July	Ord. No. 18, 1898; Ord. No. 32, 1900	January 1, 1952	1,000,000 00
Burnt District Impt.	3½ per cent.	June and Dec.	Ord. No. 71, 1904	June 1, 1954	6,000,000 00
New Sewerage Impt.	3½ per cent.	April and Oct.	Ord. No. 227, 1905	October 1, 1980	9,000,000 00
W. M. R. R.	3¼ per cent.	Jan. and July	Ord. No. 11, 1886	January 1, 1927	1,704,000 00
General Fund Bonds	¼ per cent.	Mar. and Sept.	Ord. No. 564, 1910	March 1, 1955	300,000 00
Stock due in 1860	6 per cent.			Unredeemed, no int. allowed	482 00
Water Stock due in 1875	6 per cent.			Unredeemed, no int. allowed	270 00
Con. Stock due in 1890	6 per cent.			Unredeemed, no int. allowed	427 50
Five Million Stock due in 1890	6 per cent.			Unredeemed, no int. allowed	1,903 45
W. M. R. R. Stock due in 1902	6 per cent.			Unredeemed, no int. allowed	1,000 00
				Total Funded Debt	$64,595,382 95

[illegible] Loan	General Sinking Fund	Public Park Sinking Fund No. [illegible]	W. M. R. R. Sinking Fund	Water Sinking Fund 19[illegible]	Water Sinking Fund 1922	Conduit Sinking Fund 19[illegible]	Water Sinking Fund 1926
[illegible]	[illegible] 00					$[illegible] 00	$[illegible] 00
W. M. R. R. [illegible] 1927 Loan	[illegible]	$[illegible] 00	$[illegible] 00	$[illegible] 00	$13,000 00		[illegible] 00
[illegible] Loan	[illegible] 00	[illegible] 00		8[illegible] 00	[illegible]	[illegible] 00	88,000 00
[illegible] 1928 Loan	[illegible]	[illegible]		[illegible] 00	[illegible] 00	13,800 00	76,800 00
[illegible] Loan						[illegible],000 00	10,000 00
[illegible] Loan	[illegible]	[illegible] 00	[illegible] 00	[illegible] 00		[illegible] 00	31,600 00
[illegible] 1930 Loan	[illegible] 00	[illegible] 00				[illegible] 00	
[illegible] Loan	[illegible]	[illegible],700 00		[illegible] 00	161,700 00		100,600 00
[illegible] Loan	[illegible] 00	[illegible] 00	[illegible]	[illegible] 00	[illegible] 00	[illegible] 00	[illegible] 00
[illegible] Loan	[illegible] 00	[illegible]		[illegible] 00	[illegible] 00	[illegible] 00	32,000 00
[illegible] Loan	[illegible] 00	[illegible]	[illegible] 00	[illegible] 00	[illegible] 00	[illegible] 00	97,700 00
W. M. R. R. Refunding [illegible] Loan		[illegible] 00			[illegible] 00		
[illegible] Refunding [illegible] Loan	[illegible] 00			[illegible] 00			
[illegible] Loan	[illegible] 00	[illegible] 00		[illegible]	[illegible] 00	[illegible] 00	144,200 00
[illegible] Loan	[illegible] 00	[illegible]		171,000 00	[illegible] 00	[illegible],700 00	[illegible] 00
[illegible] Loan	[illegible]						[illegible] 00
[illegible] Loan	[illegible] 00						
[illegible] Loan	[illegible]						
[illegible] Loan							
[illegible] Loan	[illegible] 00	[illegible] 00			4,000 00	[illegible] 00	10,800 00
[illegible] Loan	[illegible] 00		[illegible] 00				21,000 00
[illegible] Loan	[illegible] 00	1,700 00		[illegible] 00	[illegible] 00		[illegible] 00
[illegible] Loan	40,700 00			[illegible] 00			[illegible] 00
	$[illegible] 07	$[illegible] 00	$[illegible] 00	$[illegible] 00	$[illegible] 00	$[illegible] 00	$[illegible] 00

STATEMENT No. 10. ISSUES OF BALTIMORE CITY STOCK HELD BY THE COMMISSIONERS OF FINANCE IN THE SINKING AND SPE

Conduit Sinking Fund 1928	Internal Imp. Sinking Fund 1928	Funding Sinking Fund 1936	Public Imp. Sinking Fund 1940	Refunding Sinking Fund 1940	Water Sinking Fund 1943	Four Million Sinking Fund 1945	Burnt District Improvement Sinking Fund 1954	Annex Imp. Sinking Fund 1954	Public Park Improvement Sinking Fund 1955
$1,000 00	$80,000 00	$20,000 00	$21,000 00	$45,000 00			$37,000 00		
	212,000 00	18,000 00	66,000 00	31,300 00		$10,000 00	37,900 00		
	50,000 00	20,000 00	25,000 00	52,000 00					
$128,900 00	120,400 00	41,100 00	40,000 00	73,500 00	$5,600 00	39,700 00	29,300 00	$2,200 00	$900 00
16,300 00	130,500 00								
	40,800 00	400 00	40,800 00	3,000 00			9,700 00		
	5,000 00	51,000 00	20,000 00	10,000 00		10,000 00			
	158,100 00	58,300 00	508,500 00	74,000 00		120,200 00			
	80,000 00	20,000 00	53,000 00	575,100 00		12,000 00			
23,000 00	112,900 00	34,800 00	66,600 00	61,600 00	27,400 00	17,400 00	170,700 00	30,600 00	1,300 00
	317,[illegible] 00	164,400 00	162,500 00	88,600 00	15,000 00	152,000 00			
		20,000 00				10,000 00			
			3,000 00						
[illegible]	324,300 00	105,500 00	261,600 00	240,500 00	36,800 00	80,500 00	268,800 00	87,900 00	35,900 00
[illegible]	300,100 00	108,200 00	232,700 00	215,900 00	[illegible]	81,600 00	141,000 00	47,800 00	21,700 00
	7,700 00	500 00	3,600 00						
28,000 00	10,300 00	4,000 00	600 00			3,000 00			
			1,500 00						
	128,300 00		10,000 00		6,400 00		10,000 00		
	8,300 00				4,700 00				
$346,700 00	$2,853,[illegible]	$[illegible]72,200 00	$1,514,000 00	$1,470,500 00	$144,100 00	$5[illegible],400 00	$705,[illegible] 00	$168,500 00	$59,800 00

CIAL FUNDS DECEMBER 31 1911

New Engine House Sinking Fund 1957	New School House Sinking Fund 1957	Conduit Sinking Fund 1958	Water Sinking Fund 1958	Burnt District Improvement Sinking Fund 1960	Jones' Falls Improvement Sinking Fund 1961	School House Sinking Fund [illegible]	Dock Improvement Sinking Fund 1961	New Sewerage Improvement Sinking Fund [illegible]	Totals Held in Sinking Funds
									$300,000 00
									1,104,800 00
									765,000 00
$700 00	$700 00							$4,500 00	896,100 00
									430,800 00
									347,259 97
									146,000 00
									2,353,700 00
									1,273,600 00
25,800 00	25,800 00	$10,700 00						7,600 00	906,800 00
									2,222,400 00
									50,000 00
									203,000 00
17,600 00	17,600 00	7,000 00						[illegible]	2,997,400 00
22,200 00	22,200 00	23,700 00	$118,700 00	$16,000 00	$8,000 00	$17,[illegible] 00	$[illegible]	[illegible]	2,816,200 00
									27,600 00
									3,000 00
									5,000 00
									126,300 00
									73,000 00
									1,132,000 00
									81,000 00
$66,300 00	$66,300 00	$41,400 00	$118,700 00	$16,000 00	$8,000 00	$17,[illegible]	$[illegible]	$[illegible]	$18,260,959 97

[illegible] Fund	[illegible] Fund	Fred'k Raine Fund	Totals Held in Special Funds.
[illegible]	[illegible]		$5,500 00
	[illegible]		400 00
[illegible]	[illegible]		13,300 00
[illegible]	[illegible]		114,500 00
[illegible]	[illegible]	[illegible]	46,100 00
115,100 00	[illegible]		151,500 00
	[illegible]		700 00
[illegible]	[illegible]		39,400 00
	[illegible]		1,100 00
	[illegible]		600 00
[illegible]			900 00
[illegible]			62,300 00
[illegible]			195,000 00
[illegible]			500,000 00
[illegible]	[illegible]		2,400 00
[illegible]			1,000 00
[illegible]	[illegible]		54,700 00
[illegible]	[illegible]		5,100 00
[illegible]	[illegible]	[illegible]	$1,194,500 00

ANNUAL REPORT

OF THE

COMPTROLLER

OF

BALTIMORE CITY

FOR THE

FISCAL YEAR ENDED DECEMBER 31, 1911

IN ACCORDANCE WITH THE

UNIFORM SYSTEM OF ACCOUNTING OF THE NATIONAL MUNICIPAL LEAGUE

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

COMPTROLLER'S DEPARTMENT

Comptroller

JAMES F. THRIFT

Deputy Comptroller

W. T. CHILDS

Chief Clerk

JOSEPH S. CLARKE

Assistant Clerk	SAMUEL K. THOMAS
Auditors	THEO. A. MASTERMAN WILLIAM L. HOOPER
License Detective	WILLIAM L. GLASCOCK
Stenographer	VICTORINE K. ROBERTSON

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DEPARTMENT OF FINANCE

COMPTROLLER'S OFFICE

CITY HALL

BALTIMORE, MD., January 1, 1912.

To the Honorable the Mayor and City Council of Baltimore.

GENTLEMEN:

Herewith I respectfully submit the report of the finances of all departments of the City of Baltimore for the year 1911, showing in detail the receipts, expenditures, assets and liabilities as of December 31, 1911.

Yours truly,

JAMES F. THRIFT,

Comptroller.

PART I.

THE

ORDINANCE OF ESTIMATES

FOR THE YEAR

1911

THE
ORDINANCE OF ESTIMATES
FOR THE YEAR 1911

In accordance with the provisions of the New Charter of Baltimore City (Sections 36 to 40, inclusive), the following three lists, for the use of the Mayor and City Council of Baltimore for the year 1911, were presented by the Board of Estimates to the City Council, and were duly passed and approved by the Mayor on December 2, 1910.

LIST No. 1
Departmental Estimates

INSPECTOR OF BUILDINGS.

Salaries	$60,540 00
Repairs to city property (consolidated)	206,500 00
Emptying cesspools	300 00
Livery and transportation	1,800 00
Incidentals	400 00

COMMISSIONER OF STREET CLEANING

Salaries	26,720 00
Street carts and men	135,720 00
Sweepers and scrapers	171,912 00
Sweeping machines and sprinklers	60,284 00
Cleaning sewers and inlets	38,685 00
Tools, repairs, etc	8,085 00
Incidental expenses	2,720 00
Removal of garbage	62,500 00
Laying dust and preserving macadam roads	10,000 00
Collection of ashes and garbage	210,000 00
Removal and disposition of non-perishable waste	25,000 00
Emergency Fund	10,000 00
Destruction of weeds and grass	2,000 00
Baltimore Sanitary Contracting Company, for payment of fourth installment on account of the sum of $372,888.19, awarded to the Baltimore Sanitary Contracting Company	61,050 00

SUPERINTENDENT OF LAMPS AND LIGHTING.

Salaries	15,324 00
Gas lighting and maintenance	155,206 80
Electric lighting and maintenance	188,662 50
Naphtha lamps and maintenance	12,100 99
Incidentals	350 00

HARBOR BOARD.

Salaries	$6,086 67
Dredging harbor	40,657 00
Iceboats	20,030 00
Repairs to wharves	9,560 00
Light Street Bridge	7,019 00
Removal of ashes	1,100 00
Removal of floating matter	1,935 00
Incidentals	500 00

COMMISSIONER OF HEALTH.

Salaries	112,560 84
Expenses	30,550 00
Quarantine, salaries	14,485 00
Quarantine, expenses	8,550 00
Sydenham Hospital, salaries	10,420 00
Sydenham Hospital, expenses	16,800 00

BOARD OF FIRE COMMISSIONERS.

Salaries	723,360 00
Expenses	185,305 84
Pensions, firemen's widows	2,025 00
Two new hose companies for High Pressure Service, salaries	10,975 00
Equipment	20,000 00
Hose Company No. 12, salaries	10,075 00
Equipment	8,300 00

CITY COLLECTOR.

Salaries	36,600 00
Expenses	5,891 00

CITY ENGINEER.

Salaries	44,230 00
Repairs to roads and streets	267,650 00
Repairs to sewers	10,000 00
Maintenance, bridges and culverts	16,000 00
Paving and repaving cross streets and paving in front of city property	45,000 00
Livery and transportation	2,500 00
Footway crossings	5,000 00
Maintenance of property yard	2,800 00
Incidentals	1,000 00
Advertising	300 00
Improvements and additions to drainage system	24,000 00
Grade establishments	6,000 00
Paving private alleys	5,000 00
Emergency Fund	20,000 00

APPEAL TAX COURT.

Salaries	58,300 00
Expenses	2,150 00

LIQUOR LICENSE COMMISSION.

Salaries	14,100 00
Expenses	3,300 00

COMMISSIONERS FOR OPENING STREETS.

Salaries	$10,187 50
Expenses	500 00

SUPERVISORS OF ELECTIONS.

Salaries	15,000 00
Expenses	3,909 00
Registration, Spring	21,691 00
Primary election, Spring	32,180 00
Election, Spring	30,280 00
Registration, Fall	46,315 00
Primary election	32,180 00
Election, Fall	32,190 00

CITY LIBRARIAN.

Salaries	4,500 00
Expenses	22,715 00

SUPERINTENDENT OF PUBLIC BUILDINGS.

Salaries, City Hall	16,723 33
Expenses, City Hall	11,100 00
Salaries, City Hall Annexes	5,820 00
Expenses, City Hall Annexes	8,200 00
Salaries, Court House	33,840 00
Expenses, Court House	27,600 00

DIARY CITY COUNCIL.

Salaries	47,750 00
Expenses	11,335 00

MAYORALTY.

Salaries	12,250 00
Expenses	2,848 00
Auditing city departments	8,500 00

DEPARTMENT OF LEGISLATIVE REFERENCE.

Salaries	3,080 00
Expenses	550 00

CITY REGISTER.

Salaries	13,950 00
Expenses	1,165 00
State tax on city loans	63,000 00
Ground rents on city property	45,000 00
Advertising laws	2,000 00
Enoch Pratt Free Library Fund	4,258 00
Commissioners of Finance, expense	3,000 00
Interest on stock debt	2,356,930 50

COMPTROLLER.

Salaries	14,700 00
Expenses	1,200 00
Assistant Market Masters	6,666 65
Market cleaners	8,980 00
Inspectors of Weights and Measures	8,600 00
Insurance on city property	17,000 00
Hose for various markets	800 00

LAW DEPARTMENT.	
Salaries	$26,145 82
Expenses	6,200 00
Judgments and suits	18,000 00
TOPOGRAPHICAL SURVEY.	
Salaries	12,580 00
Expenses	1,700 00
FREE PUBLIC BATH COMMISSION.	
Salaries	38,024 00
Expenses	26,086 00
BOARD OF SCHOOL COMMISSIONERS.	
Salaries, office	9,200 00
Expenses, office	1,500 00
Salaries, day schools	1,503,113 00
Expenses, day schools	162,350 00
Salaries, night schools	21,321 00
Expenses, night schools	4,500 00
Parental School	10,000 00
New equipment	30,200 00
Teachers' Retirement Fund	3,000 00
BOARD OF POLICE COMMISSIONERS.	
Salaries	1,179,542 00
Expenses	83,775 00
Pensioners	15,574 89
BOARD OF POLICE EXAMINERS.	
Salaries	4,800 00
Expenses	912 00
SUPERVISORS OF CITY CHARITIES.	
Salaries, office	8,860 00
Expenses, office	1,500 00
Salaries, Bay View Asylum	53,590 00
Expenses, Bay View Asylum	135,359 00
Care of insane	146,500 00
City patients in hospitals	70,875 00
Destitute and neglected children	27,000 00
Dispensary service	9,000 00
Temporary care of homeless men	1,000 00
Transportation of poor to their homes	1,000 00
VISITORS TO THE JAIL.	
Salaries	36,650 00
Expenses	28,500 00
REFORMATORIES.	
Maryland School for Boys, maintenance	8,400 00
Manual training	7,000 00
St. Mary's Industrial School, maintenance of inmates from the city	48,000 00
Industrial Home for Colored Girls, maintenance of inmates from the city	6,000 00
New Improvements	2,500 00

House of Good Shepherd, maintenance of inmates from the city	$5,183 00
House of Good Shepherd for Colored Girls, maintenance of inmates from the city	4,560 00
Maryland Industrial School for Girls, maintenance of inmates from the city	7,800 00
Improvements	2,000 00
House of Reformation for Colored Boys, maintenance of inmates from the city	24,000 00
National Junior Republic, maintenance of inmates from the city	4,200 00
Home for Fallen Women, maintenance of inmates from the city	1,080 00
Universal Progressive School for Colored Destitute Orphan Children, maintenance of inmates from the city	1,200 00

GENERAL EXPENDITURES.

Pension, W. H. War	260 00
Contingent Fund (to be expended by the Board of Estimates)	50,000 00
Coroners (to be expended by the Comptroller)	9,000 00
Board of Estimates	1,000 00
Board of Public Improvements	600 00
Transportation to the House of Correction (to be expended by the Comptroller)	500 00
General licenses (to be expended by the Collector of Water Rents and Licenses and Comptroller)	2,100 00
Municipal telephone exchange (to be expended by the Comptroller)	21,892 00
Enoch Pratt Free Library, equipment and maintenance of branch libraries already established	25,000 00
Public Service Commission	14,291 55
Care of habitual drunkards	2,790 00
Municipal Tuberculosis Commission	1,100 00
Special medical examinations	500 00
Public Athletic League	3,000 00

COURTS.

Salaries, court bailiffs, stenographers, etc	65,304 16
Expenses, Criminal Court	85,462 50
Expenses, Baltimore City Court	12,571 25
Expenses, Court of Common Pleas	9,893 70
Expenses, Superior Court	14,662 65
Expenses, Circuit Court	500 00
Expenses, Circuit Court No. 2	500 00
Salaries, Orphans' Court	10,016 00
Expenses, Orphans' Court	100 00
Salaries, Juvenile Court	11,500 00
Expenses, Juvenile Court	1,000 00
Salaries, Supreme Bench	5,500 00
Expenses, Supreme Bench	3,130 00
Magistrates	19,900 00
Trust Department, Supreme Bench	200 00

BOARD OF PARK COMMISSIONERS.

Salaries, office	5,000 00
Expenses, office	2,000 00
Salaries, parks and squares	217,738 50
Expenses, parks and squares	268,484 47

COLLECTOR OF WATER RENTS AND LICENSES.

Salaries	$30,124 35
Expenses	2,055 00
Interest on Water Loans	415,000 00
Sinking Fund on Water Loan of 1943	16,050 00

WATER BOARD.

Salaries	94,180 00
Expenses	480,500 00

ELECTRICAL COMMISSION.

Operating and maintaining completed conduits, salaries	8,646 00

LIST No. 2

Estimates for New Improvements

INSPECTOR OF BUILDINGS.

To be taken from the tax levy:	
For completion of Western High School	$28,455 00
For completion of Bay View power house and machinery.	125,000 00
For completion of addition to City Jail	10,030 86
For new elevators, Court House	7,244 00
For boiler, No. 1 Bath House	1,800 00
For Bay View Asylum, mangles and porches, nurses' home	5,000 00
For vault, Health Department	2,000 00
To be taken from Fire Engine House Loan ($19,173.80), balance from the tax levy for completion of Pipe Line Station	150,000 00
For completion of Engine House No. 36	1,894 42
For completion of Engine House No. 38	2,931 93
To be taken from the School House 1961 Loan:	
For completion of School No. 86	7,237 00
For completion of School No. 59	14,658 00
For completion of School No. 2	31,205 72
For completion of School No. 60	34,652 94
For completion of School No. 6	86,041 27
For completion of School No. 70	21,050 87
For completion of School No. 51	47,963 32

COMMISSIONER OF STREET CLEANING.

For purchase of sites by the Mayor, Comptroller and Commissioner of Street Cleaning, and the erection thereon of buildings for stables	59,000 00

HARBOR BOARD.

To be taken from the tax levy:	
For bulkhead and improvements at Old Marine Hospital.	18,000 00
To be taken from the Wharves and Docks 1960 Loan:	
For acquiring property for approaches of Pratt Street Bridge, construction and paving, reappropriated	185,000 00
Public Wharves and Docks, salaries	19,068 00
Public Wharves and Docks, construction	112,000 00
To be taken from Wharves and Docks 1961 Loan:	
For the acquisition of property, preparation of plans, construction of commercial and recreation pier east of Broadway	400,000 00
For the acquisition of property, preparation of plans, construction of a pier, alterations of lines and grades of streets south side of harbor	300,000 00

COMMISSIONER OF HEALTH.

For additional ward building at Sydenham Hospital	30,000 00

CITY ENGINEER.

For grading, curbing and paving with improved pavements:

To grade, curb and pave Edmondson avenue, from Philadelphia, Baltimore and Washington Railway to west side of Fulton avenue, with sheet asphalt, asphalt, vitrified block or bithulithic; to grade, curb and pave Fulton avenue, from south side of Wilkens avenue to south side of Frederick avenue, with sheet asphalt, asphalt block, vitrified block, or bithulithic; to grade, curb and pave Fremont avenue, from south side of Baltimore street to north side of Pratt street, with granite blocks; to grade, curb and pave Brunt street, from Mosher street to McMechen street, with vitrified block; to grade, curb and pave Carrollton avenue, from Lanvale street to Harlem avenue, with sheet asphalt, asphalt block, bithulithic or vitrified blocks; to grade, curb and pave Oliver street, from Caroline street to Broadway, with sheet asphalt, asphalt blocks, bithulithic or vitrified blocks; to grade, curb and pave Barre street, from Light street to Charles street, with granite blocks; to grade, curb and pave West street from Light street to Riverside avenue, with sheet asphalt, asphalt blocks, bithulithic or vitrified blocks; to grade, curb and pave Lombard street, from Hopkins Place to Hanover street, with granite blocks; to grade, curb and pave High street, from Fayette street to Lexington street, with sheet asphalt, asphalt blocks, vitrified blocks or bithulithic; to grade, pave and curb Aisquith street, from the north side of Ashland avenue to the south side of Chase street, with sheet asphalt, asphalt blocks, vitrified blocks or bithulithic; to grade, pave and curb the north side of O'Donnell street, from the east side of Chesapeake street to the east side of Canton street, with vitrified blocks; to grade, curb and pave Patuxent street, from the north side of Fayette street to the south side of Philadelphia road, with vitrified block or bithulithic; to grade, curb and pave Mulberry street, from Payson street to Pulaski street, with sheet asphalt, asphalt blocks, vitrified blocks or bithulithic; to grade, curb and pave Welcome alley, from Charles street to Hanover street, with vitrified blocks; to grade, curb and pave Pleasant street, from eastern boundary line of Cathedral street to eastern boundary line of Little Sharp street north of Pleasant street, with vitrified blocks; to grade, curb and pave Concord street, from the south side of Lombard street to the north side of Pratt street, with granite blocks; grading and repaving Eutaw street from north side of Fremont avenue to south side of Henrietta street; grading and repaving Howard street, from north side of Cross street to the south side of Henrietta street; grading and repaving Hamburg street, from west side of Plum alley to the east side of Howard street; grading and repaving Hamburg street, from west side of Eutaw street to the east side of China alley; curb and sidewalk at Greenmount avenue and Monument street (Public Bath); to grade, curb and pave Foster alley, from the south curb line of Mosher street to the north curb line of Lafayette avenue, with sheet asphalt, asphalt block, vitrified block or bithulithic $171,305 00

For the construction of sewers and drains:

Remodeling Howard street sewer at Hamburg street; sewer of University Parkway to Keswick road; sewer in Lafayette avenue, from Montford avenue to the east side of Milton avenue; sewer in Falls road, from the culvert at the Clipper Mill road to the culvert under the Falls road, about 400 feet north of the Clipper Mill road	$9,331 05

COMMISSIONERS FOR OPENING STREETS.

Opening of Callow avenue, from North avenue to Newington avenue	734 51
Opening of Kennedy avenue, from Twenty-second street to Curtain avenue	649 29
Opening of Fortieth street, from University Parkway to Roland avenue	19,083 26
Opening of Smallwood street, from Saratoga street to Franklin street	7,422 71
Opening of Huntingdon avenue, from Twenty-fifth street to Thirtieth street	996 22
Opening of Hudson alley, from Twenty-fifth street to Twenty-eighth street	695 25
Opening of Seventh street, from Edmondson avenue to Westwood avenue	17,301 27
Opening of Bentalou street, from North avenue to Lafayette avenue	9,582 13
Opening of Twenty-second street, from Jenkins lane east	20,000 00
For widening Harford road	32,350 00

BOARD OF SCHOOL COMMISSIONERS.

To be taken from tax levy:

Payment of Polytechnic Institute lot	80,468 75
To be taken from School House 1961 Loan:	
For the purchase of lot and erecting an addition to School No. 22	130,000 00
For the erection of a building for School No. 27, on lot to be purchased with the $30,000 appropriated in 1910	105,000 00
For the erection of a 12-room addition to School No. 83 on lot already owned by city	60,000 00
For 4-room addition to School No. 57	16,000 00
For the erection of an infant room addition to School No. 99	40,000 00
To buy ground and build to relieve Nos. 111, 111 Annex and 101	120,000 00
For an addition to School No. 63	40,000 00
To add ten rooms to School No. 64	50,000 00
To buy ground and add to present building at School No. 61	75,000 00
To add to building at School No. 67	50,000 00
To add to building at School No. 34	25,000 00

SUPERVISORS OF CITY CHARITIES.

For furnishing new hospital and improving grounds	3,500 00
For additional land for institutional work and tuberculosis hospital	16,500 00

WATER BOARD.

To be taken from the tax levy:	
For new equipment for street fountains	$600 00
For changing distribution system at Hamburg street crossing, Baltimore and Ohio Railroad	2,000 00
For 10-inch main, Lawrence and Clement streets	2,500 00
For 6-inch main, Garrison avenue, between Mondawmin avenue and Windsor Mill road	2,700 00
To be taken from Water 1958 Loan:	
For 16-inch main in Fortieth street, from Roland avenue to University Boulevard	7,500 00
New pumps and boiler, Mt. Royal Pumping Station	200,000 00
For new 10-inch and 6-inch main, Harford road, north of North avenue	7,837 00
For 30-inch and 6-inch main in Seventh street, from North avenue to Edmondson avenue	40,250 00
For completion of Western High Service Reservoir	19,000 00
For purchase of land and buildings in the Gunpowder Valley for such construction work as will be done on the improvements contemplated under the new loan; for engineering instruments and office equipment, and for salaries of such additional engineering force as may be required; the same as fixed, to be approved by the Board of Estimates	2,000,000 00

BOARD OF PARK COMMISSIONERS.

To be taken from the receipts of the Park Commission:	
New improvements, general	110,167 07
To be taken from the tax levy:	
For purchase of property situated within the south side side of Baker street as laid out on the topographical map and a division line between this and the adjoining property, the east side of St. Peter's Cemetery lane, the northeasterly boundary of the Western Maryland Railroad right-of-way and the west side of Bentalou street	23,500 00

ELECTRICAL COMMISSION.

To be taken from the Conduit 1958 Loan:	
Salaries	18,330 00
Construction	211,500 00

SEWERAGE COMMISSION.

To be taken from the Sewerage 1980 Loan:	
Administrative salaries	26,900 00
Construction salaries	131,050 00
Special expenses	27,362 00
For the cost and expenses of projecting, constructing and establishing a sewerage system for the City of Baltimore, under said Act and ordinance, including the acquisition by the Mayor and City Council of Baltimore, acting by and through the agency of the Sewerage Commission, by gift, purchase, lease (whatever the duration of the lease) or other like methods of acquisition, or by condemnation of land or property, or any interest, franchise, easement, right or privilege therein, which may be required for the purpose of said Act and ordinance, construction	1,540,000 00

COMMISSION ON CITY PLAN.

To be taken from the Jones Falls 1961 Loan:

For opening, constructing and establishing a public highway over, along and near Jones Falls..... $500,000 00

PAVING COMMISSION.

To be taken from the $5,000,000 Paving Loan, contingent upon the passage of an ordinance of the Mayor and City Council of Baltimore, and its approval by the legal voters of Baltimore city, providing for the issuance of said loan, as authorized by Chapter 202 of the Acts of 1908:

For the cost and expenses in connection with the grading, paving and curbing, regrading, repaving and recurbing public streets, avenues, alleys and highways in the City of Baltimore, including construction work, salaries and other expenditures..... 500,000 00

LIST No. 3

Estimates for Annual Appropriations

Maryland Institute	$12,000 00
Children's Playground Association	14,000 00
Veteran Volunteer Firemen's Association	1,000 00
Bar Library Association	2,500 00
Public Athletic League, Cross Street Hall, per Ordinance No. 568, June 17, 1910	500 00
Public Athletic League, Broadway Hall, as per Ordinance No. 527, June 4, 1910	1,000 00
Hampden-Woodberry Neighborhood House, per Ordinance No. 508, May 23, 1910	10,000 00
Municipal Games, Patterson Park, ordinance pending in Council	500 00

SUPERINTENDENT OF LAMPS AND LIGHTING.

Illumination for Convention of Loyal Order of Moose, Ordinance No. 567, June 17, 1910	2,000 00
Grand United Order of Odd Fellows, illumination of Druid Hill avenue, Ordinance No. 559, June 13, 1910	450 00

BOARD OF SCHOOL COMMISSIONERS.

To be taken from the School House 1961 Loan: Baltimore Polytechnic Institute Building, as per Ordinance No. 500, May 17, 1910	300,000 00

COMMISSIONERS FOR OPENING STREETS.

For opening of Thirty-ninth street, as per Ordinance No. 565, June 13, 1910	5,000 00

BOARD OF FIRE COMMISSIONERS.

Ordinance No. 551, approved June 9, 1910, for the granting of a sum of money to Agnes Lindsay	450 00
Ordinance No. 550, approved June 9, 1910, for the granting of a sum of money to Lottie E. Curry	300 00
Ordinance No. 549, approved June 9, 1910, for the granting of a sum of money to Eva Wagner	400 00
Ordinance No. 541, approved June 3, 1910, for the granting of a sum of money to Mary A. McGraw	400 00
Ordinance No. 520, approved June 3, 1910, for the granting of a sum of money to Catherine Freiman	450 00
Ordinance No. 509, approved May 23, 1910, for the granting of a sum of money to Joanna Braden	400 00
Ordinance No. 507, approved May 23, 1910, for the granting of a sum of money to Christiana A. Pugh	900 00
Ordinance No. 519, approved June 3, 1910, steel fire boat, additional	15,500 00

CITY ENGINEER.

Lay out and improve Park Terrace, from Park avenue to Robert avenue, as per Ordinance No. 544, approved June 9, 1910	$8,000 00
Regrade and repave Laurens street, from west side of Park avenue to east side of Bolton street, as per Ordinance No. 532, approved June 4, 1910	5,000 00
Pave, grade and curb Luzerne street, from north side of Federal street to Baltimore Cemetery, as per Ordinance No. 528, approved June 4, 1910	2,500 00
Ordinance No. 492, approved June 6, 1910, regrading and repaving Mosher street, from west side of Madison avenue to east side of McCulloh street	3,500 00
Grading, paving and curbing Hollins street, from Garrison avenue to Catherine street, as per Ordinance No. 554, approved June 13, 1910	4,600 00

SINKING FUNDS.

General Fund	57,718 50
Water 1916 Loan	65,964 00
Water 1922 Loan	16,491 00
Water 1926 Loan	32,982 00
Internal Improvement 1928 Loan	98,946 00
Public Improvement 1940 Loan	65,964 00
Four Million 1945 Loan	16,491 00
Funding 1936 Loan	32,982 00
Conduit 1922 Loan	32,982 00
Conduit 1928 Loan	32,982 00
Refunding 1940 Loan	65,964 00
Burnt District Improvement 1954 Loan	65,964 00
Annex Improvement 1954 Loan	17,500 00
Sewerage 1980 Loan	37,000 00
Fire Engine House 1957 Loan	8,800 00
School House 1957 Loan	8,800 00
Water 1958 Loan	38,000 00
Conduit 1958 Loan	7,600 00
Dock 1960 Loan	7,600 00
Public School 1961 Loan	11,400 00
Wharves and Docks 1961 Loan	15,200 00
Jones Falls Improvement 1961 Loan	7,600 00
Public Park Improvement 1955 Loan	8,800 00
Water 1943 Loan	16,050 00
Total appropriations	$21,310,281 80

PART II.

Receipts, Appropriations and Expenditures

FOR THE

FISCAL YEAR ENDED DECEMBER 31, 1911

SCHEDULES

GIVING THE

Receipts, Appropriations and Expenditures

OF THE CITY OF BALTIMORE FOR THE FISCAL YEAR 1911,
ARRANGED ACCORDING TO THE "UNIFORM SYSTEM"
OF THE NATIONAL MUNICIPAL LEAGUE.

The first important feature of these schedules is the arrangement of the summaries or statements of totals. These follow in order of importance, and precede the detailed statements in every case, *i. e.*, first appear consolidated, summary statements, as per Schedule A-I, B-I, etc.

Then follow subsidiary detailed statements of the items in the first schedule. Then more detailed statements of the items in the secondary schedules, and so on down to the lesser items of the accounts.

The next important feature of the League's system is the distinction between "Revenue" and "Expense" accounts, which are statements of the receipts and expenditures of the fiscal year, and the "Balance Sheet" accounts, which are statements of condition of the city's assets and liabilities at the end of the fiscal year. These are the usual distinctions of commercial bookkeeping.

The third important feature is the emphatic distinction between "Ordinary" revenue and expense and "Extraordinary" revenue and expense. The former relates only to the income of the city from ordinary sources (excluding sales of bonds and other capital accounts), and to the expenditures of the city for ordinary running expenses, *i. e.*, for operation and maintenance. "Extraordinary" relates only to income from extraordinary sources, as borrowed money, etc., and to expenditures for permanent construction or other capital outlay.

The fourth important feature, and one which is practically the creation of the League, is the arrangement of the totals and afterward the details of the departmental accounts, not in alphabetical order, but in an order based upon the general purpose or function of each department or division of the municipal government.

Schedule A-I gives the consolidated summary of the total receipts and expenditures for the fiscal year, including everything which enters into the debits and credits of the year, and also the balances of cash on hand at the beginning and at the end of the year.

Schedule A-II gives the large items which together make up the total receipts as per Schedule A-I, and these figures are arranged to accord very closely with the plan adopted by Carroll D. Wright, U. S. Commissioner of Labor, in the publication of his department in relation to the "Statistics of Cities" of 30,000 population and over.

Schedule A-III gives the corresponding items which make up the total of the expenditures in the first schedule.

Schedule A-IV divides the total revenues and expenditures into distinct categories, "Ordinary," "Extraordinary," "Trust Funds," and "Temporary Accounts."

Schedule A-V takes up a more detailed study of the "Ordinary" and "Extraordinary" items arranged in groups according to general purposes or functions.

Schedule A-VI expands the items of the previous schedule, and includes the revenues, appropriations and expenditures by departments and divisions still grouped according to the League's system.

Schedule A-VII takes up the budgetary questions, balances forward, appropriations, additions, transfers to and from, expenditures and balances remaining, with the departments still grouped as before.

Schedule A-VIII consists of the ultimate details of each department's accounts as far as the Auditor's or Comptroller's report will deal with them, taken up in order separately, and with sufficient space given to each so that all the important divisions of expenditure, viz., salaries, expenses, rent, lighting, printing, etc., of each can be completely set forth.

It will be seen that the schedules progress consistently and steadily from the gross statements to the details, each schedule being an amplification of the preceding one and in complete harmony with it, and all arranged upon a definite consistent and uniform system.

SCHEDULE A—I.

Revenue and Expense of the Fiscal Year 1911.

Consolidated Statement.

Total receipts of the city from all sources		$18,415,085 11
Balance at beginning of the year:		
Register's Department	$1,849,378 26	
City Register in trust	271 88	
Commissioners of Finance	23,434 97	
		1,873,085 11
Total		$20,288,170 22
Total expenditures of the city for all purposes		18,422,984 31
Balance at end of the year:		
Register's Department	$1,832,964 59	
City Register in trust	53 62	
Commissioners of Finance	32,167 70	
		$1,865,185 91

SCHEDULE A—II.

Total Revenue (Receipts) of the Fiscal Year by Sources.

Real Estate	$8,623,175 71	
Liquor Licenses	1,125,832 85	
Other Licenses	114,930 33	
Fines (Magistrates and Bailiffs)	55,883 25	
Inspections (Gas Meters, Weights and Measures)	1,788 16	
Private Paving and Inspection	83,949 95	
Permits for Buildings, etc	1,507 54	
Franchises	24,730 49	
Water Department, Rents, etc	1,100,173 97	
Quarantine, Tonnage Dues	12,228 05	
Street Railway Park Tax	514,697 56	
Docks and Wharves	178,854 32	
Schools, State Fund and Free Text Books	550,927 43	
Markets and Halls	73,145 91	
Telephone Conduits and Subways	145,322 12	
Bath Houses, Bathing Pools and Beaches	17,012 56	
Interest on Deposits, Delayed Taxes, etc	184,270 24	
Board of Insane	17,713 65	
Rentals on City Property	10,548 44	
Jail Board and Old Material	12,756 87	
Opening Streets	37,025 11	
Sale of Sewerage 1980 Loan	1,102,900 00	
Public Wharves and Docks 1960 Loan	15,150 00	
Sale of Conduit 1958 Loan	233,495 00	
Sale of Paving 1951 Loan	502,246 46	
Sale of Jones Falls Improvement 1961 Loan	111,210 00	
Sale of School House 1961 Loan	505,757 00	
Sale of Dock Improvement 1961 Loan	202,200 00	
Water Board, Interest on Water Loan	415,000 00	
Park Board, Interest on Loan	83,000 00	
Commissioners of Finance, Interest on Western Maryland Railroad Loan and Stock	148,365 00	
Interest on General Loans	16,214 51	
General Fund 1955 Loan	300,000 00	
Burnt District Benefit Assessment Fund	5,289 38	
Unpaid Interest on Stock Debt	6,705 23	
Baltimore Sanitary Contracting Company's Plant	59,327 50	
Motor Vehicles, Licenses and Fines	11,241 98	
Infectious Disease Hospital	3,855 00	
Miscellaneous	124,414 00	
		$16,732,845 57
Commissioners of Finance:		
Trust Funds	$50,756 74	
Sinking Funds, Interest on Deposits	2,554 99	
Sinking Funds, Rentals	32,522 66	
Sinking Funds, Interest on Stock	623,216 03	
Sinking Funds, Interest on Certificates of Deposits	138,547 50	
Sinking Funds, Water Board, 1½ Per Cent. 1910 Receipts	15,813 59	
Sinking Funds, Tax Levy Provision	754,356 10	
Sinking Funds, Park Board	34,534 87	
Amounts carried forward	$1,652,302 48	$16,732,845 57

Amounts brought forward	$1,652,302 48	$16,732,845 57
Premium on Stock Sale	15,561 61	
Redemption of Baltimore and Frederick Turnpike Road Company Stock	493 20	
Proceeds from Sale of Stock in Western Maryland Railroad Sinking Fund	12,741 00	
Total		1,681,098 29
City Register in Trust:		
Property Sold for Taxes		1,141 25
Total Revenue (Receipts) from all Sources (per Schedule A—I)		$18,415,085 11

SCHEDULE A—III.

Expenditures Arranged According to General Purposes.

Mayoralty	$14,971 32
City Council	59,001 61
Law Department	44,998 13
Finance Department	143,128 41
Printing and Advertising Laws	29,050 07
Fire Department	1,196,171 21
Health Department	175,020 32
Inspector of Buildings	261,869 98
Hospitals, Charities, etc	659,627 09
Paving Streets	705,377 42
Cleaning Streets and Collection and Disposal of Ashes and Garbage	687,726 92
Lighting Streets, etc	357,950 77
Sewers and Sewerage Disposal	1,509,303 97
Bridges	104,209 47
Water Department	1,273,020 84
Markets and Market Halls	20,751 82
Docks and Wharves	485,934 19
Electrical Subways	241,647 99
Schools	2,281,087 29
Library	29,258 00
Parks	623,698 89
Public Baths	74,577 14
Engineer and Sundry Departments	107,164 34
Reformatories	199,460 21
Interest on City Debt	2,331,317 84
Ground Rents on City Property	43,586 21
State Taxes on City Loans	63,350 55
Opening Streets	75,655 01
Tax Bailiffs	49,996 95
Finance Commission, Tax Levy Sinking Fund	754,356 10
Premium on Stock Sales	15,561 61
Miscellaneous	288,831 22
City Hall and Public Buildings	109,295 97
State Departments:	
Supervisors of Elections	202,315 04
Police Department	1,281,093 03
Amount carried forward	$16,500,366 93

Amount brought forward	$16,500,366 93
Courts, etc	232,205 64
Liquor License Commission	16,686 67
Total	$16,749,259 24
Commissioners of Finance:	
Trust Funds	50,537 68
Sinking Funds, Western Maryland Railroad Loan	148,365 00
Sinking Funds, Purchase of Stocks	1,473,462 88
City Register in Trust:	
Property Sold for Taxes	1,359 51
Grand Total Expenditures for all Purposes (per Schedule A—I)	$18,422,984 31

SCHEDULE A—IV.

General Exhibit of Revenues, Appropriations and Expenditures of the Fiscal Year 1911.

Separated under the four heads, "Ordinary," "Extraordinary," "Trust Funds," and "Temporary Accounts."

	Revenues.	Appropriations.	Expenditures.
ORDINARY (Schedule A-VI.)	$15,109,302 12	$13,845,951 53	$14,573,441 20
EXTRAORDINARY (Schedule A-VI.)	2,984,337 27	7,409,680 27	3,401,663 57
TRUST FUNDS (Schedule A-VI.)	51,897 99	4,258 00	51,897 19
TEMPORARY ACCOUNTS (Schedule A-VI.)	269,547 73	50,392 00	395,982 35
Totals (A-I-II-III)	$18,415,085 11	$21,310,281 80	$18,422,984 31

Ordinary has relation only to the current revenues and "running expenses" (operation and maintenance), and does not include receipts or payments on account of loans, nor on account of permanent construction or other capital accounts.

Extraordinary has no relation to current revenue or running expenses, but does include receipts and payments on account of loans, and for permanent construction and other capital accounts.

Trust Funds include all receipts and payments of the city when acting as trustee or as agent for funds, trusts, special deposits, etc., which cannot be used except for particular and specified purposes.

Temporary Accounts include all receipts and payments of the city which are simply journal items, or items paid in, temporarily held and paid out again.

SCHEDULE A—V.

Exhibit of Revenues, Appropriations and Expenditures, Divided into Ordinary and Extraordinary, and Grouped According to Functions.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
1. General Government	$36,381 30	.....	$723,877 88	$699,144 47	.....
2. Public Safety (Protection of Health and Property)	26,854 77	.....	3,116,600 62	2,895,981 73	$250,378 45
3. Public Charity and Correction	35,424 41	$3,855 00	865,803 88	667,417 79	190,669 51
4. Public Works	177,475 72	1,775,683 96	4,987,245 06	2,071,888 77	1,622,846 90
5. Public Industries	1,516,262 10	458,348 81	4,543,812 45	1,232,012 49	839,169 43
6. Public Education, Recreation and Art.	586,219 26	505,777 00	3,872,221 21	2,495,723 35	559,649 28
7. Public Debt	863,541 88	300,000 00	63,000 00	1,685,178 43	.....
8. Interest	854,311 72	.....	2,356,945 94	2,331,317 84	.....
9. Taxation	10,456,217 63	.....	10,994 26	75,890 26	.....
10. Sundries	818,731 55	.....	769,780 50	805,715 61	.....
Totals (A-I-II-III-IV)	$15,371,420 34	$3,043,664 77	$21,310,281 80	$14,960,270 74	$3,462,713 57

1. General Government.

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
11. Executive:					
Salaries, Mayor's Office			$12,250 00	$12,119 82	
Expenses, Mayor's Office			2,848 00	2,851 50	
Revenue	$0 05				
	$0 05		$15,098 00	$14,971 32	
12. Legislative:					
Salaries, City Council			$47,750 00	$47,666 61	
Expenses, City Council			11,335 00	11,335 00	
			$59,085 00	$59,001 61	
13. Law:					
Salaries, City Solicitor			$26,145 82	$25,824 33	
Expenses, City Solicitor			6,700 00	6,700 00	
Judgments and Suits	$740 28		18,000 00	12,473 80	
	$740 28		$50,845 82	$44,998 13	

14. FINANCE:					
Salaries, Comptroller's Department			$14,700 00	$14,565 48	
Expenses, Comptroller's Department	$50 00		1,200 00	1,162 70	
Salaries, Register's Department			13,950 00	13,937 47	
Expenses, Register's Department			1,165 00	1,051 52	
Salaries, City Collector			36,600 00	34,454 71	
Expenses, City Collector			6,191 00	6,191 00	
Salaries, Appeal Tax Court			58,300 00	58,119 23	
Expenses, Appeal Tax Court			2,223 00	2,188 69	
Expenses, Commissioners of Finance			3,000 00	2,957 61	
City Seal (Register's Department)	53 21				
Auditing City Departments			8,500 00	8,500 00	
	$103 21		$145,829 00	$143,128 41	
15. ELECTIONS:					
Salaries Supervisors, etc			$15,000 00	$14,753 17	
Expenses, Supervisors, etc			3,909 00	2,640 88	
Registration, Spring			21,691 00	19,727 34	
Primary Election, Spring			32,180 00	27,869 29	
Election, Spring			30,280 00	28,382 82	
Registration, Fall			46,315 00	45,278 96	
Primary Election, Fall			32,180 00	31,735 14	
Election, Fall			32,190 00	31,927 44	
Candidates' Assessments	$8,831 25				
	$8,831 25		$213,745 00	$202,315 04	
16. PRINTING:					
Salaries, City Librarian			$4,516 67	$4,516 67	
Expenses, City Librarian			22,715 00	21,504 02	
Advertising Laws			2,629 38	2,629 38	
City Librarian (Codes, etc.)	$165 00				
Printing City Charter			400 00	400 00	
	$165 00		$30,261 05	$29,050 07	

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
17. CITY HALL AND PUBLIC BUILDINGS:					
Salaries, City Hall			$16,723 33	$16,710 83	
Expenses, City Hall			11,100 00	11,100 00	
Salaries, City Hall Annexes			5,820 00	5,717 50	
Expenses, City Hall Annexes			8,200 00	8,200 00	
Salaries, Court House			33,840 00	33,807 49	
Expenses, Court House			27,600 00	26,516 15	
New Elevators, Court House			7,244 00	7,244 00	
Superintendent of Public Buildings, Sale of Old Material	$224 35				
	$224 35		$110,527 33	$109,295 97	
18. MISCELLANEOUS:					
Contingent Fund			$22,113 77		
Salaries, Liquor License Commission			14,100 00	$13,891 67	
Expenses, Liquor License Commission			3,300 00	2,795 00	
Salaries, Topographical Survey			12,580 00	12,463 14	
Expenses, Topographical Survey			1,750 00	1,701 70	
Topographical Survey (Maps and Prints)	$1,917 73				
Salaries, Department of Legislative Reference			3,080 00	3,080 00	
Expenses, Department of Legislative Reference			550 00	493 82	
Expenses, Board of Estimates			1,229 36	1,229 36	
Expenses, Board of Public Improvements			600 00	500 00	

Municipal Telephone Exchange	3,181 12			21,892 00	22,466 07		
City Car Tickets	13,573 90				13,750 00		
Postage Stamps	7,317 20				7,396 96		
Municipal Factory Site Commission				3,000 00	2,691 33		
Public Service Commission	327 21			4,291 55	13,924 87		
	$26,317 16			$98,486 68	$96,383 92		
Total General Government (A-V)	$36,381 30			$123,877 88	$699,144 47		

2. Public Safety.

19. Police Department:							
Salaries				$1,179,542 00	$1,174,728 40		
Expenses				83,775 00	77,617 30		
Salaries, Police Examiners				4,800 00	4,757 42		
Expenses, Police Examiners				912 00	911 59		
Pensioners				15,574 89	15,574 89		
Transferred from 1910:							
Pensions					7,503 43		
				$1,284,603 89	$1,281,093 03		
20. Fire Department:							
Salaries				$723,360 00	$720,305 36		
Expenses				185,305 84	185,305 84		
Salaries, Two New Hose Companies				10,975 00			
Equipment, Two New Hose Companies				20,000 00	14,937 48		
Salaries, Hose Co. No. 12				10,075 00	8,554 83		
Equipment, Hose Co. No. 12				8,300 00	974 25		

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
20. Fire Department:—*Continued.*					
Pipe Line System and Pumping Station			$150,000 00		$150,000 00
New Steel Fire Boat			15,500 00		15,500 00
Firemen's widows			5,325 00	$5,325 00	
Old material	$2,997 83				
Lot and Building, Engine Co. No. 36			1,894 42		1,894 42
Lot and Building, Engine Co. No. 38			2,931 93		2,758 59
Transferred from 1910:					
Equipment, Engine Co. No. 38				10,390 00	
Pipe Line System and Pumping Station					43,011 0[illegible]
New Steel Fire Boat					20,291 65
Lot and Building, Engine Co. No. 36					2,208 58
Lot and Building, Engine Co. No. 35					7,706 65
Lot and Building, Engine Co. No. 41					6,967 50
	$2,997 83		$1,133,667 19	$945,792 76	$250,378 45

21. Courts:					
Salaries, Court Bailiffs, Stenographers, etc	$62 50		$65,304 16	$58,539 79	
Expenses, Criminal Court			92,190 36	91,810 76	
Expenses, Baltimore City Court			12,571 25	10,620 41	
Expenses, Court of Common Pleas			9,893 70	6,607 00	
Expenses, Superior Court			14,662 65	9,544 20	
Expenses, Circuit Court			500 00	232 75	
Expenses, Circuit Court No. 2			767 50	495 45	
Salaries, Orphans' Court			10,016 00	10,016 00	
Expenses, Orphans' Court			100 00	70 50	
Salaries, Juvenile Court			11,500 00	11,458 18	
Expenses, Juvenile Court			1,000 00	1,000 00	
Salaries, Supreme Bench			5,500 00	5,416 63	
Expenses, Supreme Bench			3,130 00	1,544 85	
Magistrates			19,900 00	19,643 55	
Trust Department, Supreme Bench			200 00	125 45	
Special Medical Examinations			500 00	425 00	
Fines	4,721 30			140 00	
Removed Cases	1,689 93			1,940 37	
Bar Library Association			2,500 00	2,500 00	
Registration Appeals			74 75	74 75	
	$6,476 73		$250,310 37	$232,205 64	

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
22. HEALTH DEPARTMENT:					
Salaries,	$10 00		$112,560 84	$112,136 72	
Expenses			29,550 00	27,716 67	
Salaries, Quarantine	5 00		14,485 00	13,977 57	
Expenses, Quarantine	35 87		8,550 00	8,119 63	
Abatement of Nuisances	689 52		1,000 00	1,612 91	
Vault for Health Department			2,000 00	2,000 00	
Municipal Tuberculosis Commission			1,100 00	373 49	
Coroners			9,083 33	9,083 33	
Quarantine Tonnage	12,228 05				
Transcripts of Births and Deaths	902 60				
	$13,871 04		$178,329 17	$175,020 32	
23. INSPECTOR OF BUILDINGS:					
Salaries			$60,540 00	$58,710 95	
Repairs to City Property Consolidated	$2,010 00		206,650 00	201,037 73	
Emptying Cess Pools			300 00	290 00	
Incidentals			400 00	331 30	
Livery and Transportation			1,800 00	1,500 00	
Removal of Dangerous Walls	1,499 17				
	$3,509 17		$269,690 00	$261,869 98	
Total Public Safety (A-V)	$26,854 77		$3,116,600 62	$2,895,981 73	$250,378 45

24. Hospitals:					
City Patients in Hospitals	$46 00		$70,875 00	$69,968 00	
Salaries, Sydenham Hospital	2 42		10,420 00	9,743 86	
Expenses, Sydenham Hospital			16,800 00	16,652 60	
Revenue, Sydenham Hospital	343 05				
Infectious Disease Hospital		$3,855 00	125 77	125 77	
Additional Building, Sydenham Hospital			30,000 00		
	$391 47	$3,855 00	$128,220 77	$96,490 23	
25. Insane:					
Care of Insane			$146,500 00	$146,500 00	
Board of Insane	$17,713 65			376 67	
Transferred from 1910:					
Care of Insane				5,946 28	
	$17,713 65		$146,500 00	$152,822 95	
26. Destitute Children:					
Destitute and Neglected Children			$27,000 00	$19,131 88	
Board of Destitute Children	$56 20				
	$56 20		$27,000 00	$19,131 88	

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
27. WORKHOUSES, ALMSHOUSES:					
Salaries, Supervisors of City Charities			$8,860 00	$8,729 14	
Expenses, Supervisors of City Charities			1,500 00	1,492 71	
Salaries, Bay View Asylum	$24 90		53,590 00	51,177 13	
Expenses, Bay View Asylum	1 69		137,054 25	137,055 94	
Board and Old Material, Bay View Asylum	629 03				
Power House and Machinery, Bay View Asylum			125,000 00		$124,443 59
Mangles and Porches, Nurses' Home, Bay View Asylum			5,000 00	5,000 00	
Furnishing New Hospital, Bay View Asylum			3,500 00	3,500 00	
Additional Land for Institutional work	3,767 69		16,500 00		20,267 69
Transferred from 1910:					
New Improvements, Bay View Asylum					25,071 13
	$4,423 31		$351,004 25	$206,954 92	$169,782 41
28. LODGING HOUSES:					
Temporary Care of Homeless Men			$1,000 00	$1,000 00	
			$1,000 00	$1,000 00	

29. Prisons and Reformatories:					
Jail, Salaries	$10 78		$36,650 00	$36,396 50	
Jail, Expenses			28,500 00	27,497 69	
Transportation to House of Correction			500 00	372 82	
Revenue, City Jail	12,756 87				
Maryland School for Boys, Maintenance			8,400 00	6,152 66	
Maryland School for Boys, Manual Training			7,000 00	5,127 22	
St. Mary's Industrial School			48,000 00	48,000 00	
Industrial Home for Colored Girls, Maintenance			6,000 00	5,762 96	
Industrial Home for Colored Girls, New Improvements			2,500 00	2,500 00	
House of Ref. for Colored Boys			24,000 00	24,000 00	
House of Good Shepherd			5,183 00	5,183 00	
Maryland Industrial School for Girls, Maintenance			7,800 00	5,976 40	
Maryland Industrial School for Girls, Improvements			2,000 00	1,999 76	
House of Good Shepherd for Colored Girls			4,560 00	4,540 00	
National Junior Republic			4,200 00	1,783 90	
Home for Fallen Women			1,080 00	1,080 00	
Universal School for Colored Orphans			1,200 00	1,200 00	
Additional Building, City Jail			10,030 86		$10,030 86
Transferred from 1910:					
Additional Building, City Jail					10,856 24
	$12,757 65		$198,603 86	$178,573 11	$20,887 10

3. Public Charity and Correction—*Concluded.*

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
30. Miscellaneous:					
Dispensary Service			$9,000 00	$8,510 03	
Transportation of Poor to their Homes	$72 13		1,000 00	467 17	
Pension, W. H. War			260 00	260 00	
Care of Habitual Drunkards			4,215 00	4,207 50	
	$72 13		$14,475 00	$13,444 70	
Total Public Charity and Correction (A-V)	$35,424 41	$3,855 00	$865,803 88	$667,417 79	$190,669 51

4. Public Works.

31. Administration:					
Salaries, City Engineer			$44,230 00	$42,469 97	
Expenses, City Engineer			3,800 00	3,460 65	
Salaries, Commissioners for Opening Streets			10,187 50	9,737 50	
Expenses Commissioners for Opening Streets			500 00	347 11	
Salaries, Superintendent of Lamps and Lighting			15,324 00	15,282 33	
Expenses, Superintendent of Lamps and Lighting			350 00	346 73	

Salaries, Commissioner of Street Cleaning			26,720 00	25,996 98	
Expenses, Commissioner of Street Cleaning			2,720 00	2,702 97	
Salaries, Harbor Board			6,086 67	6,084 01	
Expenses, Harbor Board			500 00	496 09	
Expenses, City Surveyor,			240 00	240 00	
			$110,658 17	$107,164 34	
32. Opening, Widening and Grading Streets:					
Assessment for Opening Streets	$37,025 11			$75,655 01	
Opening Streets			$76,464 64	10,316 64	
Unclaimed Damages, Opening Streets	30 00				
Widening Harford Road			32,350 00	8,022 17	
Burnt District Benefit Assess. Fund	5,289 38			15 90	
Creamer Alley			77 40	77 40	
Little Greene Street			68 10	68 10	
Frederick Avenue			29 65	29 65	
Milton Avenue			41 40	41 40	
Taylor Street			31 05	31 05	
McPhail Street			46 20	46 20	
Garrison Avenue			15 11	15 11	
Thirty-ninth Street			5,000 00	5,000 00	
Annex Improvement 1955 Loan				613 15	
	$42,344 49		$114,123 55	$99,931 78	
33. Street Paving:					
Rose Street (Transferred from 1910)				$3,168 27	
Macadamizing Duvall, Roslyn and Piedmont Avenues	$2,500 00			2,500 00	
Thirty-fifth Street, Gutter and Curb			$390 00	390 00	

	RECEIPTS.		APPROPRIATIONS.	EXPENDITURES.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
33. STREET PAVING:—*Continued.*					
Twenty-fourth Street, Paving (Transferred from 1910)				$6,148 18	
Carey Street, Paving (Transferred from 1910)				12,349 13	
Laurens Street, Paving			$5,000 00	3,870 68	
Paving Annex, Annex 1954 Loan	$14,287 90			82,094 12	
Footway Crossings			5,000 00	2,107 66	
Paving and Repairing Cross Streets and Paving in Front of City Property	165 58		45,000 00	14,982 85	
Repairs to Roads, Streets, etc	129 69		267,650 00	267,779 69	
Grade Establishments	637 49		6,000 00	4,611 77	
Paving Private Alleys	4,777 32		5,000 00	2,459 00	
Emergency Fund			20,000 00	19,975 97	
Paving Footways	654 11			308 83	
Private Paving and Inspection	83,949 95			89,365 14	
Park Terrace, Paving			8,000 00	6,049 33	
Luzerne Street, Paving			2,500 00	2,500 00	
Mosher Street, Paving			3,500 00	5 38	
Hollins Street, Paving	1,415 00		4,600 00	6,015 00	
Sundry Streets, Paving			171,305 00	144,891 69	
Sale of Old Material	3,249 74			165 05	
Paving Canton Street	3,000 00			65 21	
Paving Streets, Paving Commission			500,000 00	3,939 22	
Paving 1951 Loan		$502,246 46			$2,246 46
	$114,767 78	$502,246 46	$1,043,945 00	$705,542 47	$2,246 46

34. Street Cleaning and Collection of Ashes and Garbage:					
Street Carts and Men	$18 00		$135,720 00	$132,744 03	
Sweepers and Scrapers	1 00		171,912 00	170,546 39	
Collection of Ashes and Garbage			210,000 00	209,865 60	
Sweeping Machines and Sprinklers			60,284 00	60,243 02	
Removal and Disposal of Waste			25,000 00	24,739 55	
Laying Dust and Preserving Roads			10,000 00	8,211 33	
Destruction of Weeds and Grass			2,000 00	1,317 33	
Removal of Garbage			62,500 00	62,500 00	
Tools and Repairs			8,085 00	7,948 59	
Baltimore Sanitary Contracting Co.			61,050 00		$61,050 00
Emergency Fund			10,000 00	9,611 08	
Sale of Refuse from Streets	2,959 98				
Baltimore Sanitary Contracting Company's Plant		$59,327 50			
	$2,978 98	$59,327 50	$756,551 00	$687,726 92	$61,050 00
35: Street Lighting:					
Gas Lighting and Maintenance			$155,206 80	$154,790 96	
Electric Lights and Maintenance			188,662 50	188,647 53	
Naphtha Lamps and Maintenance			12,100 99	12,097 28	
Inspection of Meters	$1,706 56				
Illumination, Loyal Order of Moose			2,000 00	1,965 00	
Illumination of Druid Hill Avenue			450 00	450 00	
	$1,706 56		$358,420 29	$357,950 77	
36. Sewers and Sewerage Disposal:					
Cleaning Sewers and Inlets			$38,685 00	$38,548 97	
Improvements and Addition to Drainage System	$37 00		24,000 00	24,037 00	
Repairs to Sewers	3 00		10,000 00	9,291 02	

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
36. SEWERS AND SEWERAGE DISPOSAL:—*Con.*					
Howard Street Sewer					$4,198 28
Lafayette Avenue Sewer			$9,331 05		1,575 99
Falls Road Sewer					2,725 73
University Parkway Sewer					831 05
Lowering Eutaw Street Drain			2,400 00		2,112 63
Sewerage Commission, Salaries, Adm.			26,900 00		26,537 64
Sewerage Commission, Salaries, Construction			131,050 00		126,425 36
Sewerage Commission, Special Expenses			27,362 00		27,237 65
Sewerage Commission, Expenses Contruction	$4,134 74		1,540,000 00		183,028 65
Sewerage 1980 Loan		$1,102,900 00			
Transferred from 1910:					
Sewerage Commission, Construction					1,062,754 00
	$4,174 74	$1,102,900 00	$1,809,728 05	$71,876 99	$1,437,426 98
37. BRIDGES:					
Maintenance of Bridges and Culverts	$10 00		$16,000 00	$14,321 87	
Light Street Bridge, Maintenance and Salaries	63 04		7,019 00	7,082 04	
Pratt Street Bridge, Property, Construction, etc	163 20		185,000 00		$79,453 12

Transferred from 1910:					
Gwynns Falls Bridge					109,35
Edmondson Avenue Bridge					3,243 09
	$263 24		$208,019 00	$21,403 91	$82,805 56
38. MISCELLANEOUS:					
Maintenance of Property Yard			$2,800 00	$2,792 31	
Underpinning Buildings, Howard, Eutaw and Hamburg Streets			5,500 00		$5,094 76
Key Monument Base (Transferred from 1910)					54 99
Insurance on City Property	$24 95		17,000 00	16,399 28	
Railroad Siding and Tramway, Bay View			1,500 00		
Commission on City Plan, Jones Falls Highway			500,000 00		9,679 97
Jones Falls Improvement 1961 Loan		$111,210 00		1,100 00	
Jones Falls Improvement 1961 Loan, Refund					10,110 00
Lot and Building for Stables			59,000 00		14,378 18
Motor Vehicles, Licenses and Fines	11,241 98				
	$11,266 93	$111,210 00	$585,800 00	$20,291 59	$39,317 90
Total Public Works (A-V)	$177,475 72	$1,775,683 96	$4,987,245 06	$2,071,888 77	$1,622,846 90

	RECEIPTS.		APPROPRIATIONS.	EXPENDITURES.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
39. WATER WORKS:					
Salaries, Water Engineer's Department			$94,180 00	$93,559 94	
Expenses, Water Engineer's Department			481,500 00	481,500 00	
Salaries, Collector of Water Rents and Licenses			30,124 35	30,124 17	
Expenses, Colector of Water Rents and Licenses			2,055 00	1,751 94	
Interest on Water Loans			415,000 00	415,000 00	
Sinking Funds 1943 Loan			16,050 00	15,813 59	
Water Rents	$1,096,418 27			1,874 17	
Meters	3,755 70			1,190 42	
New Equipment, Fountains			600 00	600 00	
Changing Distribution, Hamburg St.			2,000 00	2,000 00	
Lawrence and Clement Street Main			2,500 00	2,500 00	
Garrison Avenue Main			2,700 00	2,700 00	
Thirty-ninth and Fortieth Street Mains			7,500 00		$7,500 00
New Pumps and Boiler, Mt. Royal Pumping Station			200,000 00		312 25
Harford Road Mains			7,837 00		7,837 00
Seventh Street Mains			40,250 00		37,894 74
Construction, New Reservoir (Expenses)	558 94		19,000 00		19,000 00
Purchase of Land, Gun Powder Valley, etc.			2,000,000 00		115,977 69

Transferred from 1910:					
Thirty-ninth and Fortieth Street Main	.....	.....	.....	.....	12,485 58
Construction, New Reservoir (Expenses)	.....	.....	.....	.....	22,175 18
New Reservoir, Gate House	.....	.....	.....	.....	1,224 17
	$1,100,732 91	.....	$3,321,296 35	$1,048,614 23	$224,406 61
40. City Real Estate:					
Ground Rents on City Property	.....	.....	$45,000 00	$43,586 21	.....
Rents from City Property	$10,548 44	.....	.....	260 30	.....
Sales of City Property	775 00	.....	.....	285 57	.....
	$11,323 44	.....	$45,000 00	$44,132 08	.....
41. Markets:					
Salaries, Assistant Market Masters	.....	.....	$6,666 65	$6,666 65	.....
Expenses, Assistant Market Masters	.....	.....	.....	3,914 18	.....
Market Cleaning	.....	.....	8,980 00	8,961 77	.....
Market Receipts	$72,929 41	.....	.....	.....	.....
Hose for Various Markets	.....	.....	843 45	843 45	.....
Market Hall Rentals	216 50	.....	.....	.....	.....
Expenses on Halls	.....	.....	.....	365 77	.....
	$73,145 91	.....	$16,490 10	$20,751 82	.....

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
12. Docks and Wharves:					
Dredging Harbor			$40,657 00	$40,657 00	
Ice Boats	$5,075 00		20,030 00	25,101 27	
Repairs to Wharves	1,557 73		9,560 00	9,560 00	
Removal of Ashes			1,100 00	806 54	
Removal of Floating Matter			1,935 00	1,930 81	
Bulkhead, Old Marine Hospital			18,000 00	12,197 92	
Rental of Docks and Piers	131,891 73				
Wharfage	$46,962 59			9,453 53	
Old Material	48 10				
Planning Exhibit			200 00	200 00	
Salaries, Wharves and Docks			19,068 00		$12,971 68
Construction, Wharves and Docks		$157 88	112,000 00		112,000 00
Recreation Pier, East of Broadway			400,000 00		3,266 26
Property and Pier South Side of Harbor		830 46	300,000 00		148,535 07
1960 Loan		15,150 00		150 00	
1961 Loan		202,200 00		2,200 00	
Transferred from 1910:					
Dredging Harbor				1,964 36	
Repairs to Wharves				2,162 01	
Construction, Wharves and Docks					104,977 74
	$185,535 15	$218,338 34	$922,550 00	$106,383 44	$381,750 75

43. Subways for Pipes and Wires:					
Salaries, Electrical Commission			$18,330 00		$15,335 04
Expenses, Electrical Commission		$6,515 47	211,500 00		217,677 03
Operating and Maintaining Conduits			8,646 00	$8,635 92	
Rental of Subways	$113,024 57				
Rentals of Conduits, C. & P. Tel. Co.	32,297 55				
Conduit 1958 Loan		233,495 00		3,495 00	
	$145,322 12	$240,010 47	$238,476 00	$12,130 92	$233,012 07
44. Miscellaneous:					
Turnpike Dividends	$202 57				
Total Public Industries (A-V)	$1,516,262 10	$458,348 81	$4,543,812 45	$1,232,012 49	$839,169 43

6. Public Education, Recreation and Art.

45. Schools:					
Salaries, General Office			$9,200 00	$9,195 48	
Expenses, General Office			1,500 00	1,500 00	
Salaries, Day Schools	$93 07		1,503,113 00	1,476,226 06	
Salaries, Night Schools			21,321 00	20,757 10	
Expenses, Night Schools			4,500 00	3,453 12	
Expenses, Day Schools	21 00		162,350 00	162,371 00	
Equipment for New Schools			30,200 00	29,445 23	
Parental School			10,000 00	5,830 77	
Teachers' Retirement Fund			3,000 00	3,000 00	
Commercial Course	10,000 00			7,356 24	
Free Text Books	57,278 28			56,601 94	
Public School Fund	465,434 26				
Tuition Fees	18,214 89			60 04	
Intestate Estates	9,326 77			4,366 51	
Lot, School No. 4			203 30	1,513 80	
Addition to School No. 2			31,205 72		$31,205 72

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
45. Schools:—*Continued.*					
Lot and Building, School No. 51			$47,963 32		$47,963 32
Building, School No. 86			7,237 00		4,417 41
Lot and Building, School No. 70			21,050 87		21,050 87
Lot and Building, Polytechnic Institute			380,468 75		114,307 88
Lot and Building, School No. 60			34,652 94		34,652 94
Addition, Western High School			28,455 00		28,455 00
Building, School No. 59			14,658 00		132 91
Lot and Building, School No. 6			86,041 27		285 00
Lot and Building, School No. 22		$20 00	130,000 00		51,520 09
Lot and Building, School No. 27			105,000 00		
Addition, School No. 83			60,000 00		53 00
Addition, School No. 37			16,043 00		43 00
Addition, School No. 99			40,000 00		53 00
Lot and Building, School No. 111			120,000 00		
Addition, School No. 63			40,000 00		7,064 49
Addition, School No. 64			50,000 00		28,547 06
Lot and Building, School No. 61			75,000 00		
Addition, School No. 67			50,000 00		50 00
Addition, School No. 34			25,000 00		
School House 1961 Loan		505,757 00		$5,757 00	
Transferred from 1910:					
Lot, School No. 27					11,579 69
Addition, School No. 2					22,097 38
Lot and Building, School No. 51					83,724 86
Lot and Building, School No. 70					1,604 64
Lot and Building, School No. 76					10,601 94
	$560,368 27	$505,777 00	$3,108,163 17	$1,787,434 29	$499,410 20

46. LIBRARIES:					
Enoch Pratt Free Library Fund			$4,258 00	$4,258 00	
Enoch Pratt Free Library Fund, Equipment, etc			25,000 00	25,000 00	
			$29,258 00	$29,258 00	
47. PARKS:					
Salaries, General Office			$5,000 00	$4,853 46	
Expenses, General Office			2,000 00	1,997 12	
Salaries, Parks and Squares			217,738 50	201,803 82	
Expenses, Parks and Squares			268,484 47	268,484 21	
New Improvements			110,167 07	110,154 44	
Sale of Sheep, Old Material, etc	$8,838 43				
Extension Park System, Northeastern Section					$11,457 80
Purchase of Easter Property			23,500 00		23,500 00
Extension Park System, General					1,430 04
	$8,838 43		$626,890 04	$587,293 05	$36,405 84
48. BATHS:					
Salaries, Free Public Bath Com			$38,021 00	$35,168 89	
Expenses, Free Public Bath Com			26,086 00	25,575 01	
Revenue, Free Public Bath Com	$17,012 56				
Baths in Neighborhood House, Hampden			10,000 00		$10,000 00
Boiler, No. 1 Bath House			1,800 00		
Transferred from 1910:					
Baths in Neighborhood House, Hampden					3,000 00
Bath House and Comfort Station, Northeast Baltimore					833 24
	$17,012 56		$75,910 00	$60,743 90	$13,833 24

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary
49. Miscellaneous:					
Maryland Institute	.....	.....	$12,000 00	$12,000 00	.....
Children's Playground Association	.....	.....	14,000 00	14,000 00	.....
Veteran Volunteer Firemen's Association	.....	.....	1,000 00	1,000 00	.....
Public Athletic League, Cross Street Hall	.....	.....	500 00	497 81	.....
Public Athletic League, Broadway Hall	.....	.....	1,000 00	.....	.....
Municipal Games, Patterson Park	.....	.....	500 00	496 30	.....
Public Athletic League	.....	.....	3,000 00	3,000 00	.....
John Mifflin Hood Monument	.....	.....	.....	.....	$10,000 00
	.....	.....	$32,000 00	$30,994 11	$10,000 00
Total Public Education, Recreation and Art (A-V)	$586,219 26	$505,777 00	$3,872,221 21	$2,495,723 35	$559,649 28

50. Loans:					
State Tax on City Loans	$790 63		$63,000 00	$63,350 55	
	$790 63		$63,000 00	$63,350 55	
51. Sinking Funds:					
Interest on W. M. R. R.				$148,365 00	
Interest on Stocks and Investments	$623,216 03				
Interest on Deposits	2,554 99				
Interest on Water Board, 1911, Received 1½% account, 1943 Loan	15,813 59				
Interest on Certificates of Deposit, W. M. R. R.	138,547 50				
Purchase and Sale of Stocks				1,473,462 88	
Park Board 5% Railway Receipts, 1911	25,734 87				
Rentals and Ground Rents	32,522 66				
Park Board 1955 Loan	8,800 00				
Premium on Stock Sales	15,561 61				
	$862,751 25			$1,621,827 88	
General Fund 1955 Loan		$300,000 00			
Total Public Debt (A-V)	$863,541 88	$300,000 00	$63,000 00	$1,685,178 43	

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
52. INTEREST:					
Interest on Deposits	$84,665 74				
Interest on Horwitz Benevolent Fund Investment	742 74			$523 68	
Interest on Frederick Raine Fund	14 00			14 00	
Unpaid Interest on Stock Debt	6,705 23				
	$92,127 71			$537 68	
53. INTEREST ON TAXES	$99,604 50				
Refund Interest on Taxes			$15 44	$15 44	
	$99,604 50		$15 44	$15 44	
54. PAYMENT OF INTEREST UPON DEBT:					
Water Board Loans	$415,000 00			$415,000 00	
Park Board Loans	83,000 00			83,000 00	
Commissioners of Finance, W. M. R. R.	148,365 00			148,365 00	
Interest on General Loans	16,214 51		$2,356,930 50	1,684,399 72	
	$662,579 51		$2,356,930 50	$2,330,764 72	
Total Interest (A-V)	$854,311 72		$2,356,945 94	$2,331,317 84	

55. REAL AND PERSONAL TAXES:					
Tax Sales	.....	.....	$294 26	$674 56	.....
Bailiffs' Fees	$49,996 95	.....	.....	49,996 95	.....
Real, 1911	5,598,142 85	.....	.....	.....	.....
Real in Arrears	870,478 75	.....	.....	.....	.....
Conscience Fund	102,60	.....	.....	.....	.....
Personal, 1911	1,311,326 77	.....	.....	.....	.....
Personal in Arrears	188,518 24	.....	.....	.....	.....
Securities	493,450 70	.....	.....	.....	.....
Savings Banks	160,990 52	.....	.....	.....	.....
Mortgages	267 88	.....	.....	.....	.....
	$8,673,275 26	.....	$294 26	$50,671 51	.....
56. LIQUOR LICENSES:					
Receipts	$1,125,832 85	.....	.....	.....	.....
	$1,125,832 85	.....	.....	.....	.....
57. OTHER LICENSES:					
General Licenses	$88,972 08	.....	$2,100 00	$1,105 94	.....
Dog Licenses and Fines (M. S. P. C. A., etc.)	27,120 25	.....	.....	14,902 44	.....
	$116,092 33	.....	$2,100 00	$16,008 38	.....

9. TAXATION—*Concluded.*

	Receipts.		Appropriations.	Expenditures.	
	Ordinary.	Extraordinary.		Ordinary.	Extraordinary.
58. FRANCHISE TAXES:					
Street Railways, Park Tax, Railways, etc	$514,697 56	.....	.....	.....	.....
Minor Privileges and Public Franchises	24,730 49	.....	.....	$179 97	.....
	$539,428 05	.....	.....	$179 97	.....
59. MISCELLANEOUS:					
Inspector of Weights and Measures...	$81 60	.....	$8,600 00	$8,472 60	.....
Permits for Sheds, etc.....	1,507 54	.....	.....	557 80	.....
	$1,589 14	.....	$8,600 00	$9,030 40	.....
Total Taxation (A-V).....	$10,456,217 63	.....	$10,994 26	$75,890 26	.....

10. Sundries.

60. Finance Commissioners:					
Sinking Funds, 1911	$754,356 10	.....	$769,780 50	$754,356 19	.....
Baltimore and Fredericktown Turnpike Company, in Part Liquidation of 137 Shares of Its Capital Stock	493 20	.....	.....	.....	.....
Proceeds of Sale of $13,700 Public Improvement 3½% 1940 Loan	12,741 00	.....	.....	.....	.....
	$767,590 30	.....	$769,780 50	$754,356 10	.....
61. Public Trust Funds:					
Enoch Pratt Free Library Fund	$50,000 00	.....	.....	$50,000 00	.....
Property Sold for Taxes (City Register, in Trust)	1,141 25	.....	.....	1,359 51	.....
	$51,141 25	.....	.....	$51,359 51	.....
Total Sundries (A-V)	$818,731 55	.....	$769,780 50	$805,715 61	.....
Grand Total (A-V)	$15,430,747 84	$2,984,337 27	$21,310,281 80	$15,021,320 74	$3,401,663 57

A Tabulated Budgetary Statement of the Finances of All Departments of the City for the Year 1911.

DEPARTMENTS.	CREDITS.					DEBITS.	BALANCES.			
	Balance from 1911.	Receipts.	Appropriations.	Transfers from Contingent Fund, etc.	Total Credits.	Expenditures.	Surplus or Deficiency of Credits.	Carried to 1912.	Closed to General Revenue.	Closed to Appropriations.
Board of Park Commissioners.										
Revenue, Street Railway receipts, sale old material, rents, etc.	$65,192 54	$523,535 99	$5,000 00		$588,728 53 5,000 00			$1,435 48		
Salaries, office			2,000 00		2,000 00	$4,853 46	$146 54			
Expenses, office			217,738 50		217,738 50	1,997 12	2 88			
Salaries, Parks and Squares			268,484 47		268,484 47	201,803 82	15,934 68			
Expenses, Parks and Squares			110,167 07		110,167 07	268,484 21	26			
New Improvements			23,500 00		23,500 00	110,154 44	12 63			
Purchase of Easter Property						23,500 00				
Public Park Improvement 1945 and 1955 Loans										
Extension of Park System	135,264 60				135,264 60	12,905 84	122,358 76	122,358 76		
Water Board.										
Collector of Water Rents and Licenses, Salaries			30,124 35		30,124 35	30,124 17	18			$0 18
Collector of Water Rents and Licenses, Expenses			2,055 00		2,055 00	1,751 94	303 06			303 06
Interest on Water Loans			415,000 00		415,000 00	415,000 00				
Sinking Fund 1943 Loan			16,050 00		16,050 00	15,813 59	236 41			236 41
Water Engineer, Salaries			94,180 00		94,180 00	93,559 94	620 06			620 06
Water Engineer, Expenses			480,500 00	$1,000 00	481,500 00	481,500 00				

Water Engineer, New Equipment—Fountains			600 00		600 00	600 00				
Water Engineer, Changing Distribution at Hamburg Street			2,000 00		2,000 00	2,000 00				
Water Engineer, Lawrence and Clement Streets Main			2,500 00		2,500 00	2,500 00				
Water Engineer, Garrison Avenue Main			2,700 00		2,700 00	2,700 00				
Water Rents, 1911	8,391 42	1,096,418 27			1,104,809 69	1,874 17	1,102,935 52		1,102,935 52	
Meters		3,755 70			3,755 70	1,190 42	2,565 28		2,565 28	
General Licenses		88,972 08			88,972 08		88,972 08		88,972 08	
Dog Licenses and Fines		27,120 25			27,120 25	14,902 44	12,217 81		12,217 81	
Thirty-ninth and Fortieth Streets Main (Water 1958 Loan and Levy)	14,289 00		7,500 00		21,789 00	19,985 58	1,803 42	1,803 42		
New Pumps and Boiler, Mount Royal Station (Water 1958 Loan)			200,000 00		200,000 00	312 25	199,687 75	199,687 75		
Harford Road Main (Water 1958 Loan)			7,837 00		7,837 00	7,837 00				
Seventh Street Main (Water 1958 Loan and Levy)	1,468 29		40,250 00		41,718 29	37,894 74	3,823 55	3,823 55		
Construction New Reservoir, Expenses (Water 1958 Loan)	27,806 27	558 94	19,000 00		47,365 21	41,175 18	6,190 03	6,190 03		
New Reservoir Gate House	1,224 17				1,224 17	1,224 17				
Purchase of Land, Gunpowder Valley (Water 1958 Loan)			2,000,000 00		2,000,000 00	115,977 69	1,884,022 31			1,884,022 31
Inspector of Buildings.										
Repairs to City Property Consolidated		2,010 00	206,500 00	150 00	208,660 00	201,037 73	7,622 27			7,622 27
Emptying Cesspools			300 00		300 00	290 00	10 00			10 00
Salaries			60,540 00		60,540 00	58,710 95	1,829 05			1,829 05
Incidentals			400 00		400 00	331 30	68 70			68 70
Livery and Transportation			1,800 00		1,800 00	1,500 00	300 00			300 00
Additional Building, City Jail	13,392 74		10,030 86		23,423 60	20,887 10	2,536 50	2,536 50		
New Elevators, Court House			7,244 00		7,244 00	7,244 00				
Vault for Health Department			2,000 00		2,000 00	2,000 00				
Permits, Sheds, etc.		1,507 54			1,507 54	557 80	449 74		449 74	
Additional Room and Sanitary Improvement, City Hall	5,323 04				5,323 04		5,323 04	5,323 04		
Removal of Dangerous Walls	*1,499 17	1,499 17								

*Debit Balance or Deficiency.

SCHEDULE A—VII.—*Continued.*

DEPARTMENTS.	CREDITS.					DEBITS.	BALANCES.			
	Balance from 1911.	Receipts.	Appropriations.	Transfers from Contingent Fund, etc.	Total Credits.	Expenditures.	Surplus or Deficiency of Credits.	Carried to 1912.	Closed to General Revenue.	Closed to Appropriations.
Schools.										
Addition to School No. 2	$25,200 83		$31,205 72		$56,406 55	$53,303 10	$3,103 45	$3,103 45		
Lot and Building, School No. 51	94,525 52		47,963 32		142,488 84	131,688 18	10,800 66	10,800 66		
Building, School No. 86	3,869 97		7,237 00		11,106 97	4,417 41	6,689 56	6,689 56		
Lot, School No. 27	30,000 00				30,000 00	11,579 69	18,420 31	18,420 31		
Lot, School No. 99	5,095 13				5,095 13		5,095 13	5,095 13		
Lot, School No. 68	2,394 35				2,394 35		2,394 35	2,394 35		
Lot and Building, School No. 70	113,860 60		21,050 87		134,911 47	22,655 51	112,255 96	112,255 96		
Lot and Building, Polytechnic Institute	66,170 18		380,468 75		446,638 93	114,895 38	331,743 55	331,743 55		
Lot and Building, School No. 60			34,652 94		34,652 94	34,652 94				
Addition, Western High School			28,455 00		28,455 00	28,455 00				
Building, School No. 59	1,942 07		14,658 00		16,600 07	132 91	16,467 16	16,467 16		
Lot and Building, School No. 6	45,646 27		86,041 27		131,687 54	285 00	131,402 54	131,402 54		
Lot and Building, School No. 22	65,850 00	$20 00	130,000 00		195,870 00	51,520 09	144,349 91	144,349 91		
Lot and Building, School No. 27			105,000 00		105,000 00		105,000 00	105,000 00		
Addition, School No. 83			60,000 00		60,000 00	53 00	59,947 00	59,947 00		
Addition, School No. 37			16,000 00	$43 00	16,043 00	43 00	16,000 00			$16,000 00
Addition, School No. 99			40,000 00		40,000 00	53 00	39,947 00	39,947 00		
Lot and Building, School No. 111			120,000 00		120,000 00		120,000 00	120,000 00		
Addition, School No. 63			40,000 00		40,000 00	7,064 49	32,935 51	32,935 51		
Addition, School No. 64			50,000 00		50,000 00	28,547 06	21,452 94	21,452 94		
Lot and Building, School No. 61			75,000 00		75,000 00		75,000 00	75,000 00		
Addition, School No. 67			50,000 00		50,000 00	50 00	49,950 00	49,950 00		
Addition, School No. 34			25,000 00		25,000 00		25,000 00	25,000 00		
Lot and Building, School No. 76	12,184 06				12,184 06	10,601 94	1,582 12			1,582 12
Parental School	7,887 74				7,887 74		7,887 74	7,887 74		
Lot near Sycamore and Third Avenues	6,000 00				6,000 00		6,000 00	6,000 00		
Lot, School No. 4	1,310 50			203 30	1,513 80	1,513 80				

Engine Houses.										
Lot and Building, Engine House No. 36,	2,208 58		1,894 42		4,103 00	4,103 00				
Lot and Building, Engine House No. 38,			2,931 93		2,931 93	2,758 59	173 34			173 34
Lot and Building, Engine House No. 35,	30,000 00				30,000 00	7,706 65	22,293 35	22,293 35		
Lot and Building, Engine House No. 41,	29,710 00				29,710 00	6,907 50	22,802 50	22,802 50		
Lot and Building, Engine House No. 40,	30,000 00				30,000 00		30,000 00			30,000 00
Commissioner of Street Cleaning.										
Salaries			26,720 00		26,720 00	25,996 98	723 02			723 02
Street Carts and Men		18 00	135,720 00		135,738 00	132,744 03	2,993 97			2,993 97
Sweepers and Scrapers		1 00	171,912 00		171,913 00	170,546 39	1,366 61			1,366 61
Collection of Ashes and Garbage			210,000 00		210,000 00	209,865 60	134 40			134 40
Cleaning Sewers and Inlets			38,685 00		38,685 00	38,548 97	136 03			136 03
Sweeping Machines and Sprinklers			60,284 00		60,284 00	60,243 02	40 98			40 98
Removal and Disposal of Waste			25,000 00		25,000 00	24,739 55	260 45			260 45
Laying Dust and Preserving Roads			10,000 00		10,000 00	8,211 33	1,788 67			1,788 67
Destruction of Weeds and Grass			2,000 00		2,000 00	1,317 33	682 67			682 67
Removal of Garbage			62,500 00		62,500 00	62,500 00				
Tools and Repairs			8,085 00		8,085 00	7,948 59	136 41			136 41
Baltimore Sanitary Contracting Company			61,050 00		61,050 00	61,050 00				
Incidental Expenses			2,720 00		2,720 00	2,702 97	17 03			17 03
Emergency Fund			10,000 00		10,000 00	9,611 08	388 92			388 92
Lots and Buildings for Stables			59,000 00		59,000 00	14,378 18	44,621 82	44,621 82		
Sale of Refuse from Streets		2,959 98			2,959 98				$2,959 98	
Superintendent of Lamps and Lighting.										
Salaries			15,324 00		15,324 00	15,282 32	41 67			41 67
Gas Lighting and Maintenance			155,206 80		155,206 80	154,790 96	415 84			415 84
Electric Lights and Maintenance			188,662 50		188,662 50	188,647 53	14 97			14 97
Naphtha Lamps and Maintenance			12,100 99		12,100 99	12,097 28	3 71			3 71
Incidentals			350 00		350 00	346 73	3 27			3 27
Illumination, Loyal Order of Moose			2,000 00		2,000 00	1,965 00	35 00			35 00
Illumination, Druid Hill Avenue			450 00		450 00	450 00				
Inspection of Gas and Electric Meters		1,706 56			1,706 56				1,706 56	

SCHEDULE A—VII.—*Continued.*

DEPARTMENTS.	CREDITS.					DEBITS.	BALANCES.			
	Balance from 1911.	Receipts.	Appropriations.	Transfers from Contingent Fund, etc.	Total Credits.	Expenditures.	Surplus or Deficiency of Credits.	Carried to 1912.	Closed to General Revenue.	Closed to Appropriations.
Harbor Board.										
Salaries			$6,086 67		$6,086 67	$6,084 01	$2 66			$2 66
Dredging Harbor	$1,965 43		40,657 00		42,622 43	42,621 36	1 07			1 07
Ice Boats		$5,075 00	20,030 00		25,105 00	25,101 27	3 73			3 73
Repairs to Wharves	1,784 80	1,557 73	9,560 00		12,902 53	11,722 01	1,180 52			1,180 52
Removal of Ashes			1,100 00		1,100 00	806 54	293 46			293 46
Removal of Floating Matter			1,935 00		1,935 00	1,930 81	4 19			4 19
Incidentals			500 00		500 00	496 09	3 91			3 91
Light Street Bridge		63 04	7,019 00		7,082 04	7,082 04				
Bulkhead Old Marine Hospital Property			18,000 00		18,000 00	12,197 92	5,802 08	$5,802 08		
Old Material, etc		48 10			48 10		48 10		$48 10	
Wharves and Docks, 1960 Loan.										
Salaries			19,068 00		19,068 00	12,971 68	6,096 32			6,096 32
Construction	105,298 27	596 08	112,000 00		217,895 35	217,416 94	478 41			478 41
Pratt Street Bridge		163 20	185,000 00		185,163 20	79,453 12	105,710 08	105,710 08		
Dock Improvement, 1961 Loan.										
Recreation Pier East of Broadway			400,000 00		400,000 00	3,266 26	396,733 74	396,733 74		
Property and Pier, South Side of Harbor		830 46	300,000 00		300,830 46	148,535 07	152,295 39	152,295 39		

Commissioner of Health.										
Salaries		10 00	112,560 84		112,570 84	112,136 72	434 12			434 12
Expenses			29,550 00		29,550 00	27,716 67	1,833 33			1,833 33
Salaries, Quarantine		5 00	14,485 00		14,490 00	13,977 57	512 43			512 43
Expenses, Quarantine		35 87	8,550 00		8,587 00	8,119 63	466 24			466 24
Salaries, Sydenham Hospital		2 42	10,420 00		10,422 42	9,743 86	678 56			678 56
Expenses, Sydenham Hospital			16,800 00		16,800 00	16,652 60	147 40			147 40
Transcripts of Births and Deaths		902 60			902 60				902 60	
Abatement of Nuisances		689 52	1,000 00		1,689 52	1,612 91	76 61		76 61	
Quarantine Tonnage Tax		12,228 05			12,228 05		12,228 05		12,228 05	
Board of Patients, Sydenham Hospital		343 05			343 05		343 05		343 05	
Additional Building, Sydenham Hospital			30,000 00		30,000 00		30,000 00	30,000 00		
Infectious Disease Hospital		3,855 00			3,855 00		3,855 00	3,855 00		
Board of Fire Commissioners.										
Salaries			723,360 00		723,360 00	720,305 36	3,054 64			3,054 64
Expenses			185,305 84		185,305 84	185,305 84				
Salaries, two New Hose Companies			10,975 00		10,975 00		10,975 00			10,975 00
Equipment, two New Hose Companies			20,000 00		20,000 00	14,937 48	5,062 52	5,062 52		
Salaries, Hose Company No. 12			10,075 00		10,075 00	8,554 83	1,520 17			1,520 17
Equipment, Hose Company No. 12			8,300 00		8,300 00	974 25	7,325 75	7,325 75		
Pipe Line System and Pumping Station	76,751 05		150,000 00		226,751 05	193,011 06	33,739 99	33,739 99		
New Steel Fire Boat	20,391 65		15,500 00		35,891 65	35,891 65				
Firemen's Widows			2,025 00		2,025 00	2,025 00				
Pensioners by Ordinance			3,300 00		3,300 00	3,300 00				
Equipment of Engine Company No. 38	10,390 00				10,390 00	10,390 00				
Revenue		2,997 83			2,997 83		2,997 83		2,997 83	
City Collector.										
Salaries			36,600 00		36,600 00	34,450 71	2,145 29			2,145 29
Expenses			5,891 00	$300 00	6,191 00	6,191 00				
Taxes, Real Property, 1911		5,598,142 85			5,598,142 85		5,598,142 85		5,598,142 85	
Taxes, Real Property, in Arrears		870,478 75			870,478 75		870,478 75		870,478 75	
Taxes, Personal Property, 1911		1,311,326 77			1,311,326 77		1,311,326 77		1,311,326 77	
Taxes, Personal Property, in Arrears		188,518 24			188,518 24		188,518 24		188,518 24	
Securities		493,450 70			493,450 70		493,450 70		493,450 70	
Savings Banks		160,990 52			160,990 52		160,990 52		160,990 52	
Mortgages		267 88			267 88		267 88		267 88	
Interest		99,604 50			99,604 50		99,604 50		99,604 50	
Tax Bailiffs		49,996 95			49,996 95		49,996 95		49,996 95	
Conscience Fund		102 60			102 60		102 60		102 60	
Tax Sales	*7,211 08						380 30	*7,591 38		
Debit Balance										

*Debit Balance or Deficiency.

DEPARTMENTS.	CREDITS.					DEBITS.	BALANCES.			
	Balance from 1911.	Receipts.	Appropriations.	Transfers from Contingent Fund, etc.	Total Credits.	Expenditures.	Surplus or Deficiency of Credits.	Carried to 1912.	Closed to General Revenue.	Closed to Appropriations.
Appeal Tax Court.										
Salaries			$58,300 00		$58,300 00	$58,119 23	$180 77			$180 77
Expenses			2,150 00	$73 00	2,223 00	2,188 69	34 31			34 31
City Engineer's Department.										
Salaries			44,230 00		44,230 00	42,469 97	1,760 03			1,760 03
Livery and Transportation			2,500 00		2,500 00	2,356 00	144 00			144 00
Incidentals			1,000 00		1,000 00	822 17	177 83			177 83
Advertising			300 00		300 00	282 48	17 52			17 52
Maintenance Property Yard			2,800 00		2,800 00	2,792 31	7 69			7 69
Footway Crossings			5,000 00		5,000 00	2,107 66	2,892 34			2,892 34
Paving and Repairing Cross Streets and Paving in Front of City Property		$166 58	45,000 00		45,166 58	44,982 85	183 73			183 73
Improvements in and Additions to Drainage System		37 00	24,000 00		24,037 00	24,037 00				
Repairs of Roads, Streets, etc		129 69	267,650 00		267,779 69	267,779 69				
Repairs of Sewers		3 00	10,000 00		10,003 00	9,291 02	711 98			711 98
Maintenance of Bridges and Culverts		10 00	16,000 00		16,010 00	14,321 87	1,688 13			1,688 13
Grade Establishments		637 49	6,000 00		6,637 49	4,611 77	2,025 72			2,025 72
Paving Private Alleys		4,777 32	5,000 00		9,777 32	2,459 00	7,318 32	$7,318 32		
Emergency Fund			20,000 00		20,000 00	19,975 97	24 03			24 03
Howard Street Sewer	Sundry Sewers					4,198 28				
Lafayette Avenue Sewer						1,575 99				
Falls Road Sewer			9,331 05		9,331 05	2,725 73				
University Parkway Sewer						831 05				
Gwynn's Falls Bridge	$180 52				180 52	109 35	71 17			71 17
Key Monument Base	87 89				87 89	54 99	32 90			32 90
Edmondson Avenue Bridge	4,713 05				4,713 05	3,243 09	1,469 96			1,469 96

Paving Footways		654 11			654 11	308 83	345 28			345 28
Private Paving and Inspection	6,069 76	83,949 95			77,880 19	89,365 14	*11,484 95	*11,484 95		
Paving Park Terrace			8,000 00		8,000 00	6,049 33	1,950 67			1,950 67
Paving Luzerne Street			2,500 00		2,500 00	2,500 00				
Paving Mosher Street			3,500 00		3,500 00	5 38	3,494 62	3,494 62		
Paving Hollins Street		1,415 00	4,600 00		6,015 00	6,015 00				
Lowering Eutaw Street Drain				2,400 00	2,400 00	2,112 63	287 37			287 37
Underpinning Buildings, Howard, Eutaw and Hamburg Streets				5,500 00	5,500 00	5,094 76	405 24	405 24		
Sale of Old Material		3,249 74			3,249 74	165 05	3,084 69		83,084 69	
Railroad Siding and Tramway (Bay View)				1,500 00	1,500 00		1,500 00	1,500 00		
Paving Canton Street		3,000 00			3,000 00	65 21	2,934 79	2,934 79		
Paving Fremont Avenue						19,328 81				
Paving Patuxent Street						1,257 42				
Paving O'Donnell Street						13,613 93				
Paving Mulberry Street						257 28				
Paving Pleasant Street						1,327 04				
Paving Concord Street						3,941 92				
Paving Carrollton Avenue						3,494 58				
Paving Oliver Street						8,692 69				
Paving Barre Street						6,328 72				
Paving West Street						5 39				
Paving High Street						3,501 32				
Paving Foster Alley						1,260 18				
Paving Hamburg Street (Plum Alley to Howard Street)			171,305 00		171,305 00	1,197 10	26,413 31	26,413 31		
Paving Hamburg Street (Eutaw Street to China Alley)						1,429 89				
Paving Brunt Street						1,994 39				
Paving Lombard Street						7,242 21				
Paving Fulton Avenue						19,524 75				
Paving Welcome Alley						1,545 76				
Paving Howard Street						7,885 62				
Paving Aisquith Street						8,095 85				
Paving Edmondson Avenue						23,287 93				
Paving Eutaw Street						9,678 91				
Paving Carey Street	42,578 38				42,578 38	35,269 83	114 81		114 81	
Paving Twenty-fourth Street						7,193 74				
Paving Rose Street, Ordinance 178, 1908,	3,168 27				3,168 27	3,168 27				
Paving Port Street, Ordinance 352, 1909,	80 54				80 54		80 54	80 54		
Macadamizing Duvall, Roslyn and Piedmont Avenues		2,500 00			2,500 00	2,500 00				
Thirty-fifth Street, gutter and curb				399 00	399 00	390 00				
Paving Laurens Street			5,000 00		5,000 00	3,670 68	1,329 32			1,329 32

*Debit Balance or Deficiency.

SCHEDULE A—VII.—*Continued.*

DEPARTMENTS.	CREDITS.					DEBITS.	BALANCES.			
	Balance from 1911.	Receipts.	Appropriations.	Transfers from Contingent Fund, etc.	Total Credits.	Expenditures.	Surplus or Deficiency of Credits.	Carried to 1912.	Closed to General Revenue.	Closed to Appropriations.
Commissioners for Opening Streets.										
Salaries			$10,187 50		$10,187 50	$9,737 50	$450 00			$450 00
Expenses			500 00		500 00	347 11	152 89			152 89
Acquiring Streets, Lanes, etc., Annex 1954 Loan	$67,522 27	$58,450 18			125,972 45	83,136 02	42,836 43	$42,836 43		
Opening Streets			76,464 64		76,464 64	27,617 91	48,846 73	48,846 73		
Opening Streets by Assessment, etc., Annex 1954 Loan	5,114 35	37,028 11			42,142 46	102,519 02	*60,376 56	*60,376 56		
Unclaimed Damages for Opening Streets	424 17	30 00			454 17		454 17	454 17		
Thirty-ninth Street Opening			5,000 00		5,000 00	5,000 00				
Widening Harford Road			32,350 00		32,350 00	8,022 17	24,327 83	24,327 83		
Liquor License Commission.										
Salaries			14,100 00		14,100 00	13,891 67	208 33			208 33
Expenses			3,300 00		3,300 00	2,795 00	505 00			505 00
Liquor License Receipts		1,125,832 85			1,125,832 85		1,125,832 85		1,125,832 85	
Supervisors of Elections.										
Salaries			15,000 00		15,000 00	14,753 17	246 83			246 83
Expenses			3,909 00		3,909 00	2,640 88	1,268 12			1,268 12
Spring Registration			21,691 00		21,691 00	19,727 34	1,963 66			1,963 66
Spring Primary			32,180 00		32,180 00	27,869 29	4,310 71			4,310 71
Spring Election			30,280 00		30,280 00	28,382 82	1,897 18			1,897 18
Fall Registration			46,315 00		46,315 00	45,278 96	1,036 04			1,036 04
Fall Primary			32,180 00		32,180 00	31,735 14	444 86			444 86
Fall Election			32,190 00		32,190 00	31,927 44	262 56			262 56
Candidates' Assessments		8,831 25			8,831 25		8,831 25		8,831 25	

City Librarian.										
Salaries			4,500 00	$16 67	4,516 67	4,516 67				
Expenses			22,715 00		22,715 00	21,504 02	1,210 98			1,210 98
Sale of Publications		165 00			165 00		165 00		165 00	
Superintendent of Public Buildings.										
Salaries, City Hall			16,723 33		16,723 33	16,710 83	12 50			12 50
Salaries, City Hall Annex			5,820 00		5,820 00	5,717 50	102 50			102 50
Salaries, Court House			33,840 00		33,840 00	33,807 49	32 51			32 51
Expenses, City Hall			11,100 00		11,100 00	11,100 00				
Expenses, City Hall Annex			8,200 00		8,200 00	8,200 00				
Expenses, Court House			27,600 00		27,600 00	26,516 15	1,083 85			1,083 85
Sale Old Material		224 35			224 35		224 35		224 35	
Diary City Council.										
Salaries			47,750 00		47,750 00	47,666 61	83 39			83 39
Expenses			11,335 00		11,335 00	11,335 00				
Mayoralty.										
Salaries			12,250 00		12,250 00	12,119 82	130 18			130 18
Expenses	155 59		2,848 00		3,003 59	2,851 50	152 09			152 09
Revenue		05			05		05		05	
City Register.										
Salaries			13,950 00		13,950 00	13,937 47	12 53			12 53
Expenses			1,165 00		1,165 00	1,051 52	113 48			113 48
State Tax on City Loans		790 63	63,000 00		63,790 63	63,350 55	440 08			440 08
Interest on Stock Debt		16,214 51	2,356,930 50		2,373,145 01	2,330,764 72	42,380 29			42,380 29
Advertising Laws			2,000 00	629 38	2,629 38	2,629 38				
Commissioners of Finance, Expense			3,000 00		3,000 00	2,957 61	42 39			42 39
Ground Rents on City Property			45,000 00		45,000 00	43,586 21	1,413 79			1,413 79
Unpaid Interest on Stock Debt		6,705 23			6,705 23		6,705 23			6,705 23
Enoch Pratt Free Library Fund			4,258 00		4,258 00	4,258 00				
Water Board, Interest on Water Loans		415,000 00			415,000 00	415,000 00				
Park Board, Interest on Park Loans		83,000 00			83,000 00	83,000 00				
Commissioners of Finance, Interest on Western Maryland Railroad Loan		148,365 00			148,365 00	148,365 00				
City Seal		53 21			53 21		53 21		53 21	
Turnpike Dividends		202 57			202 57		202 57		202 57	
In Trust, Property Sold for Taxes	271 88	1,141 25			1,413 13	1,359 51	53 62	53 62		

*Debit Balance or Deficiency.

SCHEDULE A—VII.—*Continued.*

DEPARTMENTS.	CREDITS.					DEBITS.	BALANCES.			
	Balance from 1911.	Receipts.	Appropriations.	Transfers from Contingent Fund, etc.	Total Credits.	Expenditures.	Surplus or Deficiency of Credits.	Carried to 1912.	Closed to General Revenue.	Closed to Appropriations.
Comptroller.										
Salaries			$14,700 00		$14,700 00	$14,565 48	$134 52			$134 52
Expenses		$50 00	1,200 00		1,250 00	1,162 70	87 30			87 30
Assistant Market Masters, Salaries			6,666 65		6,666 65	6,666 65				
Market Cleaners			8,980 00		8,980 00	8,961 77	18 23			18 23
Inspectors of Weights and Measures			8,600 00		8,600 00	8,472 60	127 40			127 40
Insurance on City Property		24 95	17,000 00		17,024 95	16,399 28	625 67			625 67
Hose for Markets			800 00	$43 45	843 45	843 45				
Postage Stamp Account	*$71 76	7,317 20			7,245 44	7,396 96	*151 52	*$151 12		
City Car Tickets	*76 40	13,573 90			13,497 50	13,750 00	*252 50	*252 50		
Markets		72,929 41			72,929 41	3,914 18	69,015 23		$69,015 23	
Market Halls		216 50			216 50	365 77	149 27		*149 27	
Sale of City Property		775 00			775 00	285 57	489 43		489 43	
Wharfage		46,962 59			46,962 59	9,453 53	37,509 06		37,509 06	
Piers, Wharves and Docks—Rentals		131,891 73			131,891 73		131,891 73		131,891 73	
Interest on Deposits		84,665 74			84,665 74		84,665 74		84,665 74	
Public Franchises and Minor Privileges		24,730 49			24,730 49	179 97	24,550 52		24,550 52	
Rentals from City Property		10,548 44			10,548 44	260 30	10,288 14		10,288 14	
Inspectors of Weights and Measures, Revenue		81 60			81 60		81 60		81 60	
Law Department.										
Salaries			26,145 82		26,145 82	25,824 33	321 49			321 49
Expenses			6,200 00	500 00	6,700 00	6,700 00				
Judgments and Suits		740 28	18,000 00		18,740 28	12,473 80	6,266 48			6,266 48

Topographical Survey.										
Salaries			12,580 00		12,580 00	12,463 14	116 86			116 86
Expenses			1,700 00	50 00	1,750 00	1,701 70	48 30			48 30
Blue Prints, etc.		1,917 73			1,917 73		1,917 73		1,917 73	
Department of Legislative Reference.										
Salaries			3,080 00		3,080 00	3,080 00				
Expenses			550 00		550 00	493 82	56 18			56 18
Free Public Bath Commission.										
Salaries			38,024 00		38,024 00	35,168 89	2,855 11			2,855 11
Expenses			26,086 00		26,086 00	25,575 01	510 99			510 99
Baths in Neighborhood House, Hampden	3,000 00		10,000 00		13,000 00	13,000 00				
Bath House and Comfort Station, Northeast Baltimore	24,266 24				24,266 24	833 24	23,433 00			23,433 00
Revenue		17,012 56			17,012 56		17,012 56		17,012 56	
Boiler No. 1 Bath House			1,800 00		1,800 00		1,800 00	1,800 00		
Public Service Commission.										
Salaries			14,291 55		14,291 55	13,924 87	366 68			366 68
Revenue		327 21			327 21		327 21		327 21	
Board of School Commissioners.										
Office Salaries			9,200 00		9,200 00	9,195 48	4 52			4 52
Night School Salaries			21,321 00		21,321 00	20,757 10	563 90			563 90
Day School Salaries		93 07	1,503,113 00		1,503,206 07	1,476,226 06	26,980 01			26,980 01
Office Expenses			1,500 00		1,500 00	1,500 00				
Night School Expenses			4,500 00		4,500 00	3,453 12	1,046 88			1,046 88
Day School Expenses		21 00	162,350 00		162,371 00	162,371 00				
Equipment for New Schools	10,284 72		30,200 00		40,484 72	29,445 23	11,039 49	11,039 49		
Parental School			10,000 00		10,000 00	5,830 77	4,169 23			4,169 23
Teachers' Retirement Fund			3,000 00		3,000 00	3,000 00				
Commercial Course	5,526 95	10,000 00			15,526 95	7,356 24	8,170 71	8,170 71		
Free Text Books		57,278 28			57,278 28	56,601 94	676 34	676 34		
Intestate Estates	4,970 79	9,326 77			14,297 56	4,366 51	9,931 05	9,931 05		
Public School Fund, State of Maryland		465,434 26			465,434 26		465,434 26		465,434 26	
Tuitions		18,214 89			18,214 89	60 04	18,154 85		18,154 85	

*Debit Balance or Deficiency.

SCHEDULE A—VII.—*Continued.*

DEPARTMENTS.	CREDITS.					DEBITS.	BALANCES.			
	Balance from 1911.	Receipts.	Appropriations.	Transfers from Contingent Fund, etc.	Total Credits.	Expenditures.	Surplus or Deficiency of Credits.	Carried to 1912.	Closed to General Revenue.	Closed to Appropriations.
Board of Police Commissioners.										
Salaries			1,179,542 00		1,179,542 00	1,174,728 40	4,813 60	4,813 60		
Expenses			83,775 00		83,775 00	77,617 30	6,157 70			6,157 70
Pensioners	7,503 43		15,574 89		23,078 32	23,078 32				
Board of Police Examiners.										
Salaries			4,800 00		4,800 00	4,757 42	42 58			42 58
Expenses			912 00		912 00	911 59	41			41
Supervisors of City Charities.										
City Office, Salaries			8,860 00		8,860 00	8,729 14	130 86			130 86
City Office, Expenses			1,500 00		1,500 00	1,492 71	7 29			7 29
Transportation of Poor to Their Homes		872 13	1,000 00		1,072 13	467 17	604 96			604 96
Destitute and Neglected Children			27,000 00		27,000 00	19,131 88	7,868 12			7,868 12
Care of Insane	34,000 00		146,500 00		180,500 00	152,446 28	28,053 72			28,053 72
Temporary Care of Homeless Men			1,000 00		1,000 00	1,000 00				
City Patients in Hospitals			70,875 00		70,875 00	69,968 00	907 00			907 00
Dispensary Service			9,000 00		9,000 00	8,510 03	489 97			489 97
Salaries, Bay View Asylum		24 90	53,590 00		53,614 90	51,177 13	2,437 77			2,437 77
Expenses, Bay View Asylum		1 69	135,359 00	$1,695 25	137,055 94	137,055 94				
Bay View Powerhouse Machinery	18,577 17		125,000 00		143,577 17	124,443 59	19,133 58	19,133 58		
Mangles, Porches, Nurses' Home, Bay View			5,000 00		5,000 00	5,000 00				
New Improvements, Bay View Hospital	28,864 64				28,864 64	25,071 13	3,793 51	3,793 51		
Furnishing New Hospital, Bay View			3,500 00		3,500 00	3,500 00				

Additional Land for Institutional Work									
Tuberculosis Hospital	3,767 69	16,500 00		20,267 69	20,267 69				
Old Material and Inmates' Board	629 03			629 03		629 03		$629 03	
Board of Insane Patients	17,713 65			17,713 65	376 67	17,336 98		17,336 98	
Board of Destitute Children	56 20			56 20		56 20		56 20	
Board of Hospital Patients	46 00			46 00		46 00		46 00	
Visitors to Baltimore City Jail.									
Salaries	10 78	36,650 00		36,660 78	36,396 50	264 28			264 28
Expenses		28,500 00		28,500 00	27,497 69	1,002 31	1,002 31		
Board of Prisoners and Old Material	12,756 87			12,756 87		12,756 87		12,756 87	
Courts, Etc.									
Court Bailiffs, Stenographers, etc., Salaries	62 50	65,304 16		65,366 66	58,539 79	6,826 87			6,826 87
Criminal Court, Expenses		85,462 50	6,727 86	92,190 36	91,810 76	379 60			379 60
Baltimore City Court, Expenses		12,571 25		12,571 25	10,620 41	1,950 84			1,950 84
Court of Common Pleas, Expenses		9,893 70		9,893 70	6,607 00	3,286 70			3,286 70
Superior Court, Expenses		14,662 65		14,662 65	9,544 20	5,118 45			5,118 45
Circuit Court, Expenses		500 00		500 00	232 75	267 25			267 25
Circuit Court No. 2, Expenses		500 00	267 50	767 50	495 45	272 05			272 05
Orphans' Court, Salaries		10,016 00		10,016 00	10,016 00				
Orphans' Court, Expenses		100 00		100 00	70 50	29 50			29 50
Juvenile Court, Salaries		11,500 00		11,500 00	11,458 18	41 82			41 82
Juvenile Court, Expenses		1,000 00		1,000 00	1,000 00				
Supreme Bench, Salaries		5,500 00		5,500 00	5,416 63	83 37			83 37
Trust Department, Supreme Bench		200 00		200 00	125 45	74 55			74 55
Supreme Bench, Expenses		3,130 00		3,130 00	1,544 85	1,585 15			1,585 15
Magistrates		19,900 00		19,900 00	19,643 55	256 45			256 45
Fines	4,724 30			4,724 30	140 00	4,584 30		4,584 30	
Removed Cases	1,689 93			1,689 93	1,940 37	*250 44		*250 44	
Sinking Funds.									
General		57,718 50		57,718 50	58,647 26	*928 76			928 76
Water 1916 Loan		65,964 00		65,964 00	67,026 12	1,062 12			1,062 12
Water 1922 Loan		16,491 00		16,491 00	16,756 51	265 51			265 51
Water 1926 Loan		32,982 00		32,982 00	33,513 04	531 04			531 04
Internal Improvement 1928 Loan		98,946 00		98,946 00	100,539 18	1,593 18			1,593 18
Public Improvement 1940 Loan		65,964 00		65,964 00	67,026 12	1,062 12			1,062 12
Four Million 1945 Loan		16,491 00		16,491 00	16,756 51	265 51			265 51

*Debit Balance or Deficiency.

SCHEDULE A—VII.—*Continued.*

DEPARTMENTS.	CREDITS.				DEBITS.		BALANCES.			
	Balance from 1911.	Receipts.	Appropriations.	Transfers from Contingent Fund, etc.	Total Credits.	Expenditures.	Surplus or Deficiency of Credits.	Carried to 1912.	Closed to General Revenue.	Closed to Appropriations.
Sinking Funds—Continued.										
Funding 1936 Loan			$32,982 00		$32,982 00	$33,513 04	$531 04			$531 04
Conduit 1922 Loan			32,982 00		32,982 00	33,513 04	531 04			531 04
Conduit 1928 Loan			32,982 00		32,982 00	33,513 04	531 04			531 04
Refunding 1940 Loan			65,964 00		65,964 00	67,026 12	1,062 12			1,062 12
Burnt District 1954 Loan			65,964 00		65,964 00	67,026 12	1,062 12			1,062 12
Water 1943 Loan			16,050 00		16,050 00	15,813 59	236 41			236 41
Annex Improvement 1954 Loan			17,500 00		17,500 00	17,500 00				
Sewerage 1980 Loan			37,000 00		37,000 00	37,000 00				
Public Park 1955 Loan			8,800 00		8,800 00	8,800 00				
Fire Engine House 1957 Loan			8,800 00		8,800 00	8,800 00				
School House 1957 Loan			8,800 00		8,800 00	8,800 00				
Water 1958 Loan			38,000 00		38,000 00	38,000 00				
Conduit 1958 Loan			7,600 00		7,600 00	7,600 00				
Dock 1960 Loan			7,600 00		7,600 00	7,600 00				
Public School 1961 Loan			11,400 00		11,400 00	11,400 00				
Dock Improvement 1961			15,200 00		15,200 00	15,200 00				
Jones' Falls Improvement 1961 Loan			7,600 00		7,600 00	7,600 00				
Electrical Commission.										
Salaries (1958 Loan)			18,330 00		18,330 00	15,335 04	2,994 96			2,994 96
Construction (1958 Loan)		$6,515 47	211,500 00		218,015 47	217,677 03	338 44			338 44
Operating and Maintaining Conduits			8,646 00		8,646 00	8,635 92	10 08			10 08
Rental of Subways		113,024 57			113,024 57		113,024 57		$113,024 57	

Reformatories.									
Maryland School for Boys, Maintenance			8,400 00	8,400 00	6,152 66	2,247 34			2,247 34
Maryland School for Boys, Manual Training			7,000 00	7,000 00	5,127 22	1,872 78			1,872 78
St. Mary's Industrial School			48,000 00	48,000 00	48,000 00				
Industrial Home for Colored Girls, Maintenance			6,000 00	6,000 00	5,762 96	237 04			237 04
Industrial Home for Colored Girls, New Improvements			2,500 00	2,500 00	2,500 00				
House of Reformation for Colored Boys			24,000 00	24,000 00	24,000 00				
House of Good Shepherd			5,183 00	5,183 00	5,183 00				
Maryland Industrial School for Girls, Maintenance			7,800 00	7,800 00	5,976 49	1,823 51			1,823 51
Maryland Industrial School for Girls, Improvements			2,000 00	2,000 00	1,999 78	22			22
House of Good Shepherd for Colored Girls			4,560 00	4,560 00	4,450 00	20 00			20 00
National Junior Republic			4,200 00	4,200 00	1,783 99	2,416 01			2,416 01
Home for Fallen Women			1,080 00	1,080 00	1,080 00				
Universal School for Colored Orphans			1,200 00	1,200 00	1,200 00				
Loans.									
Conduit 1958 Loan	$49,618 26	233,495 00		283,113 26	229,991 60	53,121 66	$53,121 66		
Water 1958 Loan	*192,719 34				208,090 38	*400,809 72	*400,809 72		
Annex 1954 Loan	67,522 27	58,450 18		125,972 45	83,136 02	42,836 43	42,836 43		
Sewerage 1980 Loan	122,175 57	1,102,900 00		1,225,075 57	1,421,848 56	*196,772 99	*196,772 99		
Park Extension 1955 Loan	133,834 56	1,430 04		135,264 60	12,905 84	122,358 76	122,358 76		
Four Million 1945 Loan (Public Parks)	1,430 04			1,430 04	1,430 04				
General Fund 1955 Loan		300,000 00		300,000 00		300,000 00		300,000 00	
Paving 1951 Loan		502,246 46		502,246 46	6,185 68	496,060 78	496,060 78		
Jones' Falls Improvement 1961 Loan		111,210 00		111,210 00	20,889 97	90,320 03	90,320 03		
School House 1961 Loan		505,757 00		505,757 00	141,989 86	363,767 14	363,767 14		
Dock Improvement 1961 Loan		202,200 00		202,200 00	153,170 87	49,029 13	49,029 13		
Fire Engine House 1957 Loan	187,843 43			187,843 43	79,007 59	108,835 84	108,835 84		
School House 1957 Loan	316,859 63			316,859 63	165,636 02	151,223 61	151,223 61		
Dock 1960 Loan	285,286 61	15,150 00		300,436 61	309,231 46	*8,794 85	*8,794 85		
Western Maryland Railroad Fund	10,000 00			10,000 00	10,000 00				
Commissioners of Finance	23,434 97	1,681,098 29		1,704,533 26	1,672,365 56	32,167 70	32,167 70		

*Debit Balance or Deficiency.

SCHEDULE A—VII.—*Concluded.*

DEPARTMENTS.	CREDITS.					DEBITS.		BALANCES.		
	Balance from 1911.	Receipts.	Appropriations.	Transfers from Contingent Fund, etc.	Total Credits.	Expenditures.	Surplus or Deficiency of Credits.	Carried to 1912.	Closed to General Revenue.	Closed to Appropriations.
Sewerage Commission.										
Sewerage 1980 Loan.										
Salaries, Administrative			$26,900 00		$26,900 00	$26,537 64	$362 36			$362 36
Salaries, Construction			131,050 00		131,050 00	126,425 36	4,624 64			4,624 64
Special Expenses			27,362 00		27,362 00	27,237 65	124 35			124 35
Expenses Construction	1,062,754 00	4,134 74	1,540,000 00		2,606,888 74	1,245,782 65	1,361,106 09	$970,039 29		391,066 80
Jones Falls Highway.										
Commission on City Plan.										
Salaries and Expenses			500,000 00		500,000 00	9,679 97	490,320 03			490,320 03
Municipal Factory Site Commission.										
Salaries and Expenses				$3,000 00	3,000 00	2,691 33	308 67			308 67
Paving Commission.										
Salaries and Expenses			500,000 00		500,000 00	3,939 22	496,060 78	496,060 78		

Miscellaneous.										
General Licenses.										
Motor Vehicle Licenses and Fines		11,241 98			11,241 98		11,241 98		$11,241 98	
Auditing City Departments			8,500 00		8,500 00	8,500 00				
Special Medical Examinations			500 00		500 00	425 00	75 00			75 00
Transportation of Prisoners to House of Correction			500 00		500 00	372 82	127 18			127 18
Municipal Tuberculosis Commission			1,100 00		1,000 00	373 49	726 51			726 51
Pension, W. H. War			260 00		260 00	260 00				
Coroners			9,000 00	83 33	9,083 33	9,083 33				
Contingent Fund			50,000 00		50,000 00	*27,886 23	22,113 77			22,113 77
Habitual Drunkards			2,790 00	1,425 00	4,215 00	4,207 50	7 50			7 50
Board of Estimates			1,000 00	229 36	1,229 36	1,229 36				
Municipal Telephone Exchange		3,181 12	21,892 00		25,073 12	22,466 07	2,607 05			2,607 05
Mural Decorations, Court House	500 00				500 00		500 00	500 00		
Tax, Underground Conduits		32,297 55			32,297 55		32,297 55		32,297 55	
Baltimore Sanitary Contracting Company, Plant		59,327 50			59,327 50		59,327 50		59,327 50	
Board of Public Improvements			600 00		600 00	500 00	100 00			100 00
Enoch Pratt Free Library, Equipment and Maintenance			25,000 00		25,000 00	25,000 00				
Public Athletic League			3,000 00		3,000 00	3,000 00				
Maryland Institute			12,000 00		12,000 00	12,000 00				
Children's Playground Association			14,000 00		14,000 00	14,000 00				
Veteran Volunteer Firemen's Association			1,000 00		1,000 00	1,000 00				
Bar Library Association			2,500 00		2,500 00	2,500 00				
Public Athletic League, Cross Street Hall			500 00		500 00	497 81	2 19			2 19
Public Athletic League, Broadway Hall			1,000 00		1,000 00		1,000 00	1,000 00		
Municipal Games, Patterson Park			500 00		500 00	496 30	3 70			3 70
City Surveyor, Rental				240 00	240 00	240 00				
Memorial to John Mifflin Hood	10,000 00				10,000 00	10,000 00				
Burnt District Benefit Assessment Fund		5,289 38			5,289 38	15 90	5,273 48		5,273 48	

*Debit Balance or Deficiency.

SCHEDULE A—VIII.

1. GENERAL GOVERNMENT A—VI

MAYORALTY A—VI (11).

Appropriation, salaries			$12,250 00
EXPENDITURES.			
Mayor J. Barry Mahool, December 1, 1910, to May 15, 1911	$2,750 00		
Mayor James H. Preston, May 16, 1911, to December 15, 1911	3,500 00		
		$6,250 00	
Secretary A. S. Goldsborough, December 15, 1910, to March 7, 1911	$516 00		
Secretary A. S. Goldsborough, April 1, 1911, to June 7, 1911	429 20		
Secretary Robert E. Lee, June 8, 1911, to December 15, 1911	1,201 12		
		2,146 32	
Clerk Walter M. Jordan, December 15, 1910, to December 20, 1911		1,518 50	
Messenger Walter E. Busch, December 15, 1910, to December 15, 1911		1,200 00	
Stenographer E. P. Tuchton, December 15, 1910, to May 17, 1911	$463 69		
Stenographer, Charles Kreuder, Jr., May 18, 1911, to December 15, 1911	536 31		
		1,000 00	
Telephone man, J. Fox		5 00	
Total expenditures			12,119 82
Surplus of credit			$130 18
Balance to surplus, 1911			130 18

MAYOR'S OFFICE, EXPENSES A—VI (11).

Appropriation			$2,848 00
Brought forward from 1910			155 59
Total receipts			$3,003 59
EXPENDITURES.			
Special typewriting, Hooper (School Board) trial.		$653 10	
Notary and suppers, Hooper (School Board) trial.		57 50	
Newspapers, telegrams, car tickets, advertising		302 39	
Special typewriting, rubber stamps, ledger, books.		155 33	
Stamps, postals, directories, etc		450 50	
Hall rent and automobile hire, entertaining visitors		169 15	
Report on City Planning		50 00	
Mayor's Message, printing		368 65	
Repairing and varnishing portraits, Mayor's office.		68 50	
Amounts carried forward		$2,275 12	$3,003 59

Amounts brought forward	$2,275 12	$3,003 59
League of American Municipalities and other conventions, dues and traveling expenses	513 90	
Typewriter supplies	62 48	
Total expenditures		2,851 50
Surplus of credit		$152 09
Balance to surplus, 1911		152 09

REVENUE.

Received from Charles B. Jones	$0 05
Paid into City Treasury	05

DIARY CITY COUNCIL A—VI (12).

Appropriation	$47,750 00

EXPENDITURES.

First Branch officers, salaries:			
Chief Clerk, W. W. Radcliffe, December 15, 1910, to March 5, 1911	$354 80		
Chief Clerk, Harry C. Kilmer, March 6, 1911, to May 15, 1911	309 64		
Chief Clerk, Gilbert A. Dailey, May 18, 1911, to December, 15, 1911	926 79		
		$1,591 23	
Reading Clerk, Andrew J. Preller, December 15, 1910, to May 15, 1911	$500 00		
Reading Clerk, Andrew J. Preller, May 18, 1911, to December 15, 1911	695 16		
		1,195 16	
Committee Clerk, Edward H. Hargrave, December 15, 1910, to May 15, 1911	$500 00		
Committee Clerk, Edward H. Hargrave, May 18, 1911, to December 15, 1911	695 16		
		1,195 16	
Page, George W. Graham, December 15, 1910, to May 15, 1911	$333 30		
Page, George W. Graham, May 18, 1911, to December 15, 1911	463 39		
		796 69	
Sergeant-at-Arms, J. W. Parr, December 15, 1910, to May 15, 1911	$333 30		
Sergeant-at-Arms, Harry J. McClellan, May 18, 1911, to December 15, 1911	463 39		
		796 69	
Doorkeeper, Wm. T. McMahon, December 15, 1910, to May 15, 1911	$291 60		
Doorkeeper, John J. McKenna, May 18, 1911, to December 15, 1911	405 42		
		697 02	
Doorkeeper, John A. Forster, December 15, 1910, to May 15, 1911	$291 60		
Doorkeeper, John A. Forster, May 18, 1911, to December 15, 1911	405 42		
		697 02	
		$6,968 97	
Amounts carried forward		$6,968 97	$47,750 00

Amounts brought forward		$6,968 97	$47,750 00
First Branch members, salaries:			
First Ward—John H. Trautfelter, December 1, 1910, to May 15, 1911	$456 99		
First Ward—George L. Durm, May 16, 1911, to December 1, 1911	543 01		
		$1,000 00	
Second Ward—George Heller, December 1, 1910, to February 6, 1911	$184 52		
Second Ward—James J. Jung, February 8, 1911, to December 1, 1911	812 50		
		997 02	
Third Ward—Edward W. Klein, December 1, 1910, to May 15, 1911	$456 99		
Third Ward—Wm. J. Garland, May 16, 1911, to December 1, 1911	543 01		
		1,000 00	
Fourth Ward—Louis D. Greene, December 1, 1910, to May 15, 1911	$456 99		
Fourth Ward—John D. Spencer, May 16, 1911, to December 1, 1911	543 01		
		1,000 00	
Fifth Ward—W. W. Cherry, December 1, 1910, to May 15, 1911.	$456 99		
Fifth Ward—Samuel Lasch, May 16, 1911, to December 1, 1911.	543 01		
		1,000 00	
Sixth Ward—John Betz, Jr., December 1, 1910, to February 18, 1911	$220 23		
Sixth Ward—Henry Rapp, May 16, 1911, to December 1, 1911..	752 97		
		973 20	
Seventh Ward—John F. Gettemuller, December 1, 1910, to December 1, 1911....		1,000 00	
Eighth Ward—Isaac Frank, December 1, 1910, to May 15, 1911.	$456 99		
Eighth Ward—Wm. W. Stockham, May 16, 1911, to December 1, 1911	543 01		
		1,000 00	
Ninth Ward—Charles R. Whiteford, December 1, 1910, to December 1, 1911....		1,000 00	
Tenth Ward—Bernard J. Lee, December 1, 1910, to December 1, 1911.....		1,000 00	
Eleventh Ward—Addison E. Mullikin, December 1, 1910, to May 15, 1911.....	$456 99		
Eleventh Ward—Jefferson D. Norris, May 16, 1911, to December 1, 1911.....	543 01		
		1,000 00	
Amounts carried forward		$17,939 19	$47,750 00

Amounts brought forward		$17,939 19	$47,750 00
Twelfth Ward—Timothy O. Heatwole, December 1, 1910, to December 1, 1911	1,000 00		
Thirteenth Ward—Samuel L. West, December 1, 1910, to December 1, 1911	1,000 00		
Fourteenth Ward—Augustus C. Binswanger, December 1, 1910, to December 1, 1911	1,000 00		
Fifteenth Ward—Henry A. Ulrich, December 1, 1910, to May 15, 1911	$456 99		
Fifteenth Ward—Harry C. Kilmer, May 16, 1911, to December 1, 1911	543 01		
	1,000 00		
Sixteenth Ward—Robert D. McCurdy, December 1, 1910, to May 15, 1911	$456 99		
Sixteenth Ward—Albert C. Tolson, May 16, 1911, to December 1, 1911	543 01		
	1,000 00		
Seventeenth Ward—Harry S. Cummings, December 1, 1910, to December 1, 1911	1,000 00		
Eighteenth Ward—Fred. T. Hellmann, December 1, 1910, to May 15, 1911	$456 99		
Eighteenth Ward—Edward Gross, May 16, 1911, to December 1, 1911	543 01		
	1,000 00		
Nineteenth Ward—L. Bates Etchison, December 1, 1910, to May 15, 1911	$456 99		
Nineteenth Ward—John F. O'Meara, May 16, 1911, to December 1, 1911	543 01		
	1,000 00		
Twentieth Ward—Henry L. Weinefeld, December 1, 1910, to May 15, 1911	$456 99		
Twentieth Ward—Wm. N. Hildebrand, May 16, 1911, to December 1, 1911	543 01		
	1,000 00		
Twenty-first Ward—Joseph E. Muse, December 1, 1910, to May 15, 1911	$456 99		
Twenty-first Ward—John E. Benson, May 16, 1911, to December 1, 1911	543 01		
	1,000 00		
Twenty-second Ward—Charles G. Griebel, December 1, 1910, to May 15, 1911	$456 99		
Twenty-second Ward—Charles A. Jording, May 16, 1911, to December 1, 1911	543 01		
	1,000 00		
Amounts carried forward		$28,939 19	$47,750 00

Amounts brought forward			$28,939 19	$47,750 00
Twenty-third Ward—William Hiller, December 1, 1910, to December 1, 1911		1,000 00		
Twenty-fourth Ward — H. J. C. Hoffman, December 1, 1910, to May 15, 1911	$456 99			
Twenty-fourth Ward—William J. Lang, May 16, 1911, to December 1, 1911	543 01			
		1,000 00		
			$30,939 19	
Second Branch officers, salaries:				
Chief Clerk, Albert C. Tolson, December 15, 1910, to May 15, 1911	$666 60			
Chief Clerk, C. Charles Friedel, May 18, 1911, to December 15, 1911	926 79			
		$1,593 39		
Reading Clerk, Norval H. King, December 15, 1910, to May 15, 1911	$500 00			
Reading Clerk, Norval H. King, May 18, 1911, to December 15, 1911	695 16			
		1,195 16		
Committee Clerk, Robert F. Leach, Jr., December 15, 1910, to May 15, 1911	$500 00			
Committee Clerk, Robert F. Leach, Jr., May 18, 1911, to November 5, 1911	611 83			
Committee Clerk, William Fink, November 6, 1911, to December 15, 1911	83 33			
		1,195 16		
Sergeant-at-Arms, Frank Ziegenheim, December 15, 1910, to May 15, 1911	$333 30			
Sergeant-at-Arms, Frank Ziegenheim, May 18, 1911, to December 15, 1911	463 39			
		796 69		
Page, Thomas L. Drummey, December 15, 1910, to May 15, 1911	$291 60			
Page, Thomas L. Drummey, May 18, 1911, to December 15, 1911.	405 42			
		697 02		
			5,477 42	
Second Branch members, salaries:				
President, George N. Numsen, December 1, 1910, to May 15, 1911	$1,370 97			
President, John Hubert, May 16, 1911, to December 1, 1911	1,629 03			
			3,000 00	
Amounts carried forward			$39,416 61	$47,750 00

Amounts brought forward		$39,416 61	$47,750 00
First District—George Konig, December 1, 1910, to February 6, 1911	$184 52		
First District—George Heller, February 7, 1911, to December 1, 1911	815 48		
		1,000 00	
First District—James Hughes, December 1, 1910, to May 15, 1911	$456 99		
First District—John H. Trautfelter, May 16, 1911, to December 1, 1911	543 01		
		1,000 00	
Second District—Henry Trager, December 1, 1910, to May 15, 1911	$456 99		
Second District—Isaac Frank, May 16, 1911, to December 1, 1911	543 01		
		1,000 00	
Second District—Edwin R. Downes, December 1, 1910, to December 1, 1911		1,000 00	
Third District—Duke Bond, December 1, 1910, to December 1, 1911		1,000 00	
Third District—George Warfield, December 1, 1910, to May 15, 1911	$456 99		
Third District—Francis P. Curtis, May 16, 1911, to December 1, 1911	543 01		
		1,000 00	
Fourth District—Charles H. Heintzeman, December 1, 1910, to December 1, 1911.		1,000 00	
Fourth District—George W. Green, December 1, 1910, to May 15, 1911	$456 99		
Fourth District—Richard N. Sheckells, May 16, 1911, to December 1, 1911	543 01		
		1,000 00	
J. F. Preiss, indexing Journals (both Branches)		250 00	
Total expenditures			47,666 61
Surplus of credit			$83 39
Balance to surplus, 1911			83 39

DIARY CITY COUNCIL A—VI (12).

Appropriation, expenses	$11,335 00

EXPENDITURES.

Meyer & Thalheimer, printing Journal and reports	$9,506 56	
C. N. Waller, engrossing resolutions, Ferdinand C. Latrobe	200 00	
Amounts carried forward	$9,706 56	$11,335 00

Amounts brought forward	$9,706 56	$11,335 00
C. N. Waller, engrossing resolutions, John Betz, Jr.	60 00	
C. N. Waller engrossing resolutions, W. W. Radcliffe	60 00	
C. N. Waller, engrossing resolutions, W. W. Cherry.	200 00	
C. N. Waller, engrossing resolutions, Cardinal Gibbons	60 00	
J. J. Cummins, flowers, funeral W. W. Radcliffe	25 00	
J. J. Cummins, flowers, funeral John Betz, Jr.	25 00	
E. Madison Mitchell, hacks, funeral W. W. Radcliffe	12 00	
John J. Cowan, hacks, funeral John Betz, Jr.	16 00	
L. P. Dietrich, portrait Mayor J. Barry Mahool	650 00	
A. B. Montague, running elevator	100 00	
Postage stamps	195 00	
Advertising ordinances and notices in sundry papers	76 44	
Washing towels	16 00	
Extra clerical help	133 00	
		11,335 00

LAW DEPARTMENT A—VI (13).

Appropriation, salaries	$26,145 82

EXPENDITURES.

Edgar Allan Poe, City Solicitor, salary to September 15, 1911	$3,562 50	
S. S. Field, City Solicitor, salary from September 15, 1911, to December 15, 1911	1,125 00	
Sylvan Hayes Lauchheimer, Deputy City Solicitor, salary to September 24, 1911	2,450 00	
Alexander Preston, Deputy City Solicitor, salary, from September 24, 1911, to December 15, 1911	675 00	
Joseph S. Goldsmith, Assistant City Solicitor, salary to November 1, 1911	2,750 00	
W. H. DeC. Wright, Assistant City Solicitor, salary to September 15, 1911	1,979 18	
German H. H. Emory, Assistant City Solicitor, salary to September 15, 1911	1,979 18	
Benjamin H. McKindless, Assistant City Solicitor, salary from September 15, 1911, to December 15, 1911	624 99	
Frank Driscoll, Assistant City Solicitor, salary from September 15, 1911, to December 15, 1911	624 99	
Robert F. Leach, Jr., Assistant City Solicitor, salary from November 21, 1911, to December 15, 1911	173 62	
John V. Ward, Assistant Clerk, salary to October 15, 1911	1,000 00	
George Vavrina, Assistant Clerk, salary from October 15, 1911, to December 15, 1911	200 00	
Charles A. Marshall, assistant, salary to October 1, 1911	1,187 50	
Edward J. Colgan, Jr., assistant, salary from October 1, 1911, to December 15, 1911	312 50	
Amounts carried forward	$18,644 46	$26,145 82

Amounts brought forward	$18,644 46	$26,145 82
Emma V. Ellinger, stenographer, salary to October 4, 1911	521 55	
Salaries to December 15, 1911:		
Henry W. Weeks, clerk	1,800 00	
John K. Wess, messenger	349 98	
Allan C. Girdwood, assistant, Department of Titles	1,500 00	
Alma L. Marchant, stenographer	608 34	
Julia A. McNeal, stenographer	600 00	
Florence M. Cook, stenographer	600 00	
Katharine H. Doyle, stenographer	600 00	
Margaret I. Pierce, stenographer	600 00	
Total expenditures		25,824 33
Surplus of credit		$321 49
Balance to surplus, 1911		321 49
Appropriation, expenses		$6,200 00
Transferred from Contingent Fund		500 00
Total credits		$6,700 00

EXPENDITURES.

Examining titles, William Ewin Bonn	$45 00	
Examining titles, Charles H. Buck	151 75	
Examining titles, Jacob I. Cohen	810 00	
Examining titles, George A. Frick	160 00	
Examining titles, C. Charles Friedel	290 00	
Examining titles, Edward Hall, Jr	256 40	
Examining titles, Samuel C. Houlton	450 00	
Examining titles, William Penn Lewis	525 00	
Examining titles, Derby A. Lynch	25 00	
Examining titles, M. A. McCormick	30 00	
Examining titles, Hugh A. Norman	375 00	
Examining titles, Torrence D. Overcash	82 48	
Examining titles, Francis E. Pegram	80 00	
Examining titles, R. E. Preece	115 00	
Examining titles, Charles F. Rechner	32 50	
Examining titles, Samuel Register	25 00	
Examining titles, Frederick W. Story	470 00	
Examining titles, Title Guarantee and Trust Company	71 55	
Examining titles, John Watson, Jr	450 00	
Joseph Ruzicka, book binding	15 25	
Luckett-Rittler Co., book binding	68 75	
Ault & Co., Inc., book binding	65 00	
Charles Pielert, indexing opinions of City Solicitors and seeing work through press	602 00	
Art Metal Construction Co., roller shelf case	175 00	
M. L. Himmel & Son, bookcases, etc	54 42	
King Bros., printing	525 00	
Henry Werner, repairing furniture	1 50	
Typewriter purchases, repairs and supplies	186 52	
Postage stamps	63 04	
Amounts carried forward	$6,201 16	$6,700 00

Amounts brought forward	$6,201 16	$6,700 00
Fares to Annapolis and hotel bills	33 85	
Blueprints	6 92	
Newspapers	21 74	
Directories	12 35	
Railroad fares to Richmond and hotel bills	20 00	
Affidavits	2 05	
Whisk brooms, etc	1 43	
Law books	400 50	
Total expenditures		6,700 00

JUDGMENTS AND SUITS A—VI (13).

Appropriation $18,000 00

EXPENDITURES.

Judgments, settlements and costs:		
Clara Schmidt vs. City, Baltimore City Court, costs.	$19 90	
City vs. Isaac Hinds, Baltimore City Court, costs..	12 40	
May Walter vs. City, Baltimore City Court, costs..	27 70	
Elizabeth C. Lewis vs. City, Baltimore City Court, costs	21 00	
Gordon W. Maddox vs. City, Baltimore City Court, costs	7 00	
Cora Raubach vs. City, Baltimore City Court, costs.	26 25	
Bettie M. Brengle vs. City, Baltimore City Court, costs	25 75	
Martha Parker vs. City, Baltimore City Court, costs	12 30	
Edwin M. Wilmer, etc., vs. Adolph Glaser et al., Baltimore City Court, costs	50	
Edwin M. Wilmer, etc., vs. Yette Silberman et al., Baltimore City Court, costs	50	
William G. Scarlett vs. City, Baltimore City Court, costs	14 50	
Louise DeVed vs. City, Baltimore City Court, costs.	14 35	
Thomas Ryan vs. City, Baltimore City Court, costs.	16 25	
State, use of "Dubcak," vs. City, Baltimore City Court, costs	23 70	
James W. Bates vs. City, Baltimore City Court, costs	15 00	
City vs. John W. Settles, Baltimore City Court, costs	13 40	
Good Value Bargain House Company vs. City, Baltimore City Court, costs	15 90	
Victor G. Bloede et al. vs. City, Baltimore City Court, costs	39 15	
City vs. F. Egerton Webb et al., Baltimore City Court, costs	27 10	
City vs. Henry T. Weaver, Baltimore City Court, costs	8 40	
The Saratoga Construction Company of Baltimore City vs. City, Baltimore City Court, costs	14 75	
The Holliday Real Estate Company vs. City, Baltimore City Court, costs	14 75	
A. Crawford Smith, etc., vs. City, Baltimore City Court, costs	16 00	
Amounts carried forward	$386 55	$18,000 00

Amounts brought forward	$386 55	$18,000 00
Anna Litchfield vs. City, Baltimore City Court, costs	9 00	
James H. Litchfield vs. City, Baltimore City Court, costs	4 00	
George N. Kroner vs. City, Baltimore City Court, costs	7 55	
A. Crawford Smith, etc., vs. City, Baltimore City Court, costs	15 25	
Helen M. Collars vs. City, Superior Court, costs	5 00	
Frank Ruzicka et al. vs. City, Superior Court, costs	16 55	
Sophia Hurka vs. City, Superior Court, costs	16 55	
John Kalus et al. vs. City, Superior Court, costs	16 55	
Anna Martinack vs. City, Superior Court, costs	16 55	
Mathias Bolak et al. vs. City, Superior Court, costs	16 55	
William H. Blunt vs. City, Superior Court, costs	16 30	
Louis T. Birmingham vs. City, Superior Court, costs	22 40	
Annie Crowley vs. City, Superior Court, costs	50	
Michael Goldstein vs. City, Superior Court, costs	34 65	
Frank Bauer, etc., vs. City, Superior Court, costs	7 75	
Annie Crowley vs. City, Superior Court, costs	5 80	
Freda Denker, etc., vs. City, Superior Court, costs	13 10	
City vs. William F. Downs, Superior Court, costs	1,020 92	
City vs. the Arlington Loan and Building Association, Superior Court, costs	13 30	
City vs. Cosmopolitan Building and Loan Association, Superior Court, costs	13 30	
A. S. Abell Company vs. City, Superior Court, costs	16 95	
M. Josephine Curtis vs. City, Superior Court, costs	10 35	
Otto Michael vs. City, Court of Common Pleas, costs	15 30	
Virginia Bastable vs. City, Court of Common Pleas, costs	18 10	
John Kuhn et al. vs. City, Court of Common Pleas, costs	1 25	
Abraham Goldberg vs. City, Court of Common Pleas, costs	7 00	
Annie Geisler vs. City, Court of Common Pleas, costs	16 90	
William W. Roberts vs. City, Court of Common Pleas, costs	8 30	
Ida V. Rutter vs. City, Court of Common Pleas, costs	22 00	
John Q. Boyer vs. City, Circuit Court, costs	44 77	
John Dellevie vs. City, Circuit Court, costs	39 11	
Helen Mackintosh, Lydia Mackintosh et al. vs. City, Circuit Court, costs	5 00	
Ernest Morris et al. vs. City, Circuit Court, costs	30 75	
Helen Mackintosh vs. Lydia Mackintosh et al., Circuit Court, costs	52 90	
Mackintosh vs. Mackintosh, Circuit Court, auditor's fees	4 75	
Merchants Building and Savings Asociation vs. City, Circuit Court No. 2, costs	13 50	
City vs. J. Sewell Thomas, etc., Court of Appeals, costs	40 70	
Amounts carried forward	$2,005 75	$18,000 00

Amounts brought forward	$2,005 75	$18,000 00
Victor G. Bloede, etc., vs. City, Court of Appeals, costs	123 35	
City vs. Hannis Distilling Company, United States Circuit Court, costs	35 30	
Warren Manufacturing Company vs. City, United States Circuit Court, costs	97 25	
Elizabeth C. Lewis vs. City, Baltimore City Court, settlement	350 00	
May Walter vs. City, Baltimore City Court, settlement	250 00	
Cora Raubach vs. City, Baltimore City Court, settlement	225 00	
M. Josephine Curtis vs. City, Baltimore City Court, settlement	350 00	
Louis T. Birmingham vs. City, Superior Court, settlement	100 00	
William H. Blunt vs. City, Superior Court, settlement	25 00	
Mary Bolak vs. City, Superior Court, settlement	85 00	
Frank Ruzicka et al. vs. City, Superior Court, settlement	400 00	
Anna Martinack vs. City, Superior Court, settlement	125 00	
John Kalus et al. vs. City, Superior Court, settlement	265 00	
Sophia Hurka vs. City, Superior Court, settlement.	75 00	
Michael Goldstein vs. City, Superior Court, settlement	50 00	
Virginia Bastable vs. City, Court of Common Pleas, settlement	300 00	
Lillian E. Gambrill vs. City, Court of Common Pleas, settlement	50 00	
Abraham Goldberg vs. City, Court of Common Pleas, settlement	25 00	
Leander Foreman vs. City, Court of Comon Pleas, settlement	75 00	
Frederick E. Schlitzberger, before Wilmer Emory, J. P., judgment	27 00	
The Fleischman Company, settlement	910 05	
Medical and Chirurgical Faculty of the State of Maryland, settlement	184 75	
John B. Schwatka, settlement	7 20	
Anna Lippa, settlement	40 00	
Louisa Hebner, settlement	28 50	
Anna Slechta, settlement	110 00	
Charles A. Flach, settlement	77 00	
Maud Goldsborough, settlement	100 00	
Louis Levin, settlement	100 00	
Theresa B. Mathews, settlement	125 00	
Freda Denker, settlement	1,000 00	
John Milanicz, settlement	50 00	
Inrich and Annie Zavadil, settlement	100 00	
Caroline Kopenhafer, settlement	60 00	
Vojtech and Katerina Zavadil, settlement	50 00	
Albert J. and Frances A. Visek, settlement	50 00	
Mary Svobada, settlement	125 00	
Amounts carried forward	$8,156 15	$18,000 00

Amounts brought forward	$8,156 15	$18,000 00
Vaclav Pich et al., settlement	50 00	
Roselie Martinek, settlement	45 00	
Frank and Barbara Slechta, settlement	50 00	
Remmer J. and Louise Remmers, settlement	70 00	
Rebecca J. Merryman, settlement	25 00	
Michael McKenney, settlement	85 00	
John Kuszmaul, settlement	25 00	
Good Value Bargain House, settlement	10 00	
Maryland Motor Car Insurance Company, settlement	25 00	
D. E. Foote Company (Inc.), settlement	32 44	
Nannie R. Rigdon, settlement	85 00	
George F. Blome, settlement	35 00	
George Lynn Coane et al., settlement	150 00	
John Schuppner, settlement	8 15	
Rosina C. Summers, settlement	7 00	
Lee H. Pumphrey, settlement	10 00	
Alice Tweedale, settlement	25 00	
Professional services, expenses, etc	585 70	
Printing briefs, etc	487 40	
Advertising	5 00	
Stenographers' fees	187 26	
Magistrates' cases, tax cases, acknowledgments, etc.	2,314 70	
Total expenditures		12,473 80
Surplus of credit		$5,526 20
Balance to surplus, 1911		5,526 20

REVENUE.

Received from F. M. Keeler	$64 05
Received from City Collector (magistrates)	676 23
Total receipts	$740 28
Paid into City Treasury	740 28

COMPTROLLER'S DEPARTMENT A—VI (14).

Appropriation, salaries			$14,700 00

EXPENDITURES.

Comptroller, Harry F. Hooper, December 15, 1910, to May 15, 1911	$1,666 64		
Comptroller, James F. Thrift, May 16, 1911, to December 15, 1911	2,333 36		
		$4,000 00	
Deputy Comptroller, Julius W. Freeman, December 15, 1910, to May 15, 1911	$1,154 14		
Deputy Comptroller, W. T. Childs, May 16, 1911, to December 15, 1911	1,633 34		
		2,787 48	
Chief Clerk, Henry C. Hines, December 15, 1910, to July 1, 1911	$1,074 97		
Chief Clerk, Joseph S. Clarke, July 1, 1911, to December 15, 1911	825 00		
		1,899 97	
Amounts carried forward		$8,687 45	$14,700 00

Amounts brought forward		$8,687 45	$14,700 00
Assistant Clerk, Samuel K. Thomas, December 15, 1910, to December 15, 1911		1,419 04	
Auditor, Joseph S. Clarke, December 15, 1910, to June 30, 1911	$822 49		
Auditor, Thedore A. Masterman, July 1, 1911, to December 15, 1911	687 50		
		1,509 99	
Auditor, William L. Hooper, December 15, 1910, to December 15, 1911		1,419 04	
License Detective, Theodore A. Masterman, December 15, 1910, to June 30, 1911	$659 96		
License Detective, William L. Glascock, July 1, 1911, to December 15, 1911	550 00		
		1,209 96	
Stenographer, Victorine K. Robertson, December 15, 1910, to December 15, 1911		320 00	
Total expenditures			14,565 48
Surplus of credit			$134 52
Balance to surplus, 1911			134 52
Appropriation, expenses			$1,200 00
By sale Monarch Typewriter			50 00
Total receipts			$1,250 00

EXPENDITURES.

Newspapers, etc	$12 74	
Meals, overtime work	43 95	
Postage stamps, etc	105 08	
Rubber stamps, etc	22 15	
Stationery, etc	28 50	
Repairing Monarch Typewriter	5 00	
Repairing Burroughs Adding Machine	51 16	
Premiums on employees' bonds	49 68	
City Directory	7 00	
Repairing and cleaning vault	5 50	
Expenses, railroad, etc., to convention, Frederick	5 00	
Car tickets	5 40	
Advertising—Markets and peddler licenses	44 15	
Advertising—Old Marine Hospital Property	37 70	
Meyer & Thalheimer, printing annual report	123 55	
New dater	3 00	
Recording deeds	66 50	
Notary	1 55	
Special typewriting	72 75	
Extra clerical help	468 00	
Express, grinding erasers, etc	4 34	
Total expenditures		1,162 70
Surplus of credit		$87 30
Balance to surplus, 1911		87 30

CITY REGISTER'S DEPARTMENT A—VI (14).

Appropriation, salaries		$13,950 00
EXPENDITURES.		
City Register, J. Sewell Thomas, December 1, 1910, to July 1, 1911 $2,041 66		
City Register, Richard Gwinn, July 1, 1911, to December 15, 1911 1,604 14		
	$3,645 80	
Deputy Register, Issac L. Newman, December 1, 1910, to December 15, 1911	2,604 17	
Chief Clerk, William T. Gatchell, December 1, 1910, to December 15, 1911	1,700 00	
Stock Clerk, George Roeder, Jr., December 1, 1910, to December 15, 1911	1,591 67	
Assistant Clerk, Charles H. Moore, December 1, 1910, to December 15, 1911	1,200 00	
Assistant Clerk, Walter R. Lyon, December 1, 1910, to December 15, 1911	1,200 00	
Assistant Clerk, M. Frank Fitzpatrick, December 1, 1910, to December 15, 1911	1,000 00	
Stenographer, Louis McShane, December 1, 1910, to December 15, 1911	995 83	
Total expenditures		13,937 47
Surplus of credit		$12 53
Balance to surplus, 1911		12 53
Appropriation, expenses		$1,165 00
EXPENDITURES.		
Premium on employees' bonds	$258 90	
Daily papers and express	11 64	
Metal cases	286 00	
Postage	236 00	
Directory	7 00	
Photograph	20 00	
Meals	7 60	
Rubber stamps, perforator and magnetograph	96 06	
Printing, stationery, etc	88 82	
Voucher boxes	33 00	
Railroad fare in Downs case	6 50	
Total expenditures		1,051 52
Surplus of credit		$113 48
Balance to surplus, 1911		113 48

CITY COLLECTOR'S DEPARTMENT A—VI (14).

Appropriation, salaries		$36,600 00
EXPENDITURES.		
City Collector, Frank Brown	$1,210 46	
City Collector, George N. Numsen	461 52	
City Collector, Jacob W. Hook	328 02	
Deputy Collector, E. A. Hartman	2,500 00	
Amounts carried forward	$4,500 00	$36,600 00

Amounts brought forward	$4,500 00	$36,600 00
Cashier, C. T. Jenkins	1,800 00	
Assistant Cashier, J. L. Cassard	1,500 00	
Bookkeeper, Charles Schwartzhaupt	1,125 37	
Bookkeeper, B. F. Gallery	332 70	
Cash Bookkeeper, J. G. Franie	1,600 00	
Chief Clerk, William Linthicum	1,500 00	
Piece Clerk, John W. Scott	1,300 00	
Ledger Clerk, Robert Paterson	1,300 00	
Ledger Clerk, O. B. Craig	1,300 00	
Ledger Clerk, S. L. Streett	1,300 00	
Ledger Clerk, E. A. Holmes	1,300 00	
Ledger Clerk, W. S. O'Donnell	1,300 00	
Ledger Clerk J. D. Taylor	1,300 00	
Ledger Clerk, T. F. Hannon	1,300 00	
Ledger Clerk, N. J. Pfeifer	1,300 00	
Ledger Clerk, P. J. Tewey	1,029 30	
Ledger Clerk, J. A. Kelly	267 34	
Ledger Clerk, W. M. Corcoran	1,300 00	
Ledger Clerk, W. A. Price	1,300 00	
Ledger Clerk, F. Kohler	1,300 00	
Ledger Clerk, J. C. Galloway	1,216 87	
Ledger Clerk, W. F. Stricker	1,300 00	
Ledger Clerk, David Cowan	83 13	
Ledger Clerk, H. C. Anderson	1,300 00	
Ledger Clerk, M. P. Caughy	1,300 00	
Total expenditures		34,454 71
Surplus of credit		$2,145 29
Balance to surplus, 1911		2,145 29
Appropriation, expenses		$5,891 00
Transferred from Contingent Fund		300 00
Total credits		$6,191 00

EXPENDITURES.

Suppers for employees while on night duty	$1,728 00	
Bonds for employees	1,455 46	
Postage stamps	417 99	
Advertising	600 80	
Services of stenographer	720 00	
Tax computer	413 65	
City Directories	49 00	
Extra help during January	30 00	
Printing annual reports	8 00	
Repairing adding machine	4 00	
Card index system, metal case and cards	714 26	
Incidentals, newspapers, rubber stamps, magistrates' fees, etc	41 84	
Total expenditures		6,191 00

APPEAL TAX COURT A—VI (14).

Appropriation, salaries..... $58,300 00

EXPENDITURES.

Judge, Oscar Leser	$3,000 00	
Judge, Albert B. Cunningham	3,000 00	
Judge, William H. Brune, 3½ months	875 00	
Judge, John Gill. Jr., 8½ months	2,125 00	
Chief Clerk, Frank J. Murphy	1,800 00	
Assistant Clerk, Clarence W. Biddle	1,600 00	
Transfer, Writ and Notice Clerk, F. Bernard Aiken, ½ month	50 00	
Transfer, Writ and Notice Clerk, Charles M. Childs, 11½ months	1,437 50	
Stenographer and Clerk, Jeremiah J. Santry	1,000 00	
Chief Assessor, J. C. Le Grand Cole	2,400 00	
Assistant to Chief Assessor, W. Charles Pistel, ½ month	58 33	
Assistant to Chief Assessor, J. Wesley White, ½ month	58 33	
Assistant to Chief Assessor, David Stiefel, 11½ months	1,725 00	
Assistant to Chief Assessor, George W. Edwards, 11½ months	1,725 00	
Special Assessor, Thomas J. Lindsay	2,200 00	
Special Assessor, Alfred D. Bernard	2,200 00	
Assessor, Daniel C. Coblens	2,000 00	
Assessor, Samuel B. Fauth	2,000 00	
Assessor, James W. Flack, Jr.	2,000 00	
Assessor, Francis P. Curtis, 5 months 1 day	838 71	
Assessor, M. Luther Wright, 6½ months	1,083 34	
Assessor, Peter R. Quinn, 6½ months	812 50	
Assessor, William A. Harvey, Jr.	1,500 00	
Assessor, David Stiefel, ½ month	62 50	
Assessor, George W. Edwards, ½ month	62 50	
Assessor, George R. Cross	1,500 00	
Assessor, M. Luther Wright, 5½ months	687 50	
Assessor, Henry A. Williams	1,500 00	
Assessor, W. Charles Pistel, 11½ months	1,437 50	
Assessor, J. Wesley White, 11½ months	1,437 50	
Assessor, Webster I. Bians	1,200 00	
Assessor, John F. Ahern	1,200 00	
Assessor, Gilbert A. Dailey, 5 months 3 days	509 68	
Assessor, William T. McMahon, 6½ months	650 00	
Assessor, Oregon Milton Dennis	1,200 00	
Assessor, Charles E. Parr	1,200 00	
Assessor, F. W. Max Weissenborn	1,200 00	
Assessor, Young O. Wilson	1,200 00	
Clerk, Thomas E. Jenkins, ½ month	50 00	
Clerk, Thomas E. Jenkins, 11½ months	1,341 67	
Clerk, Augustus B. Clark, ½ month	50 00	
Clerk, Augustus B. Clark, 11½ months	1,341 67	
Clerk, Nesbit Turnbull	1,200 00	
Amounts carried forward	$54,519 23	$58,300 00

Amounts brought forward	$54,519 23	$58,300 00
Clerk, Peter R. Quinn, 5½ months	550 00	
Clerk, J. Harry Jenkins, 6½ months	650 00	
Clerk, John J. Volz	1,200 00	
Clerk, F. Bernard Aiken, 11½ months	1,150 00	
Clerk, Charles M. Childs	50 00	
Total expenditures		58,119 23
Surplus of credit		$180 77
Balance to surplus, 1911		180 77
Appropriation, expenses		$2,150 00
Transferred from Contingent Fund		73 00
Total credits		$2,223 00

EXPENDITURES.

Plats, drawing sketches, etc	$570 50	
Transportation	511 70	
Stamps, etc	240 00	
List of vessel property	250 00	
Register of Wills	150 00	
Bromley Atlas, etc	72 00	
Overtime work (suppers)	95 25	
Law books, cabinet, etc	91 51	
Chronicles, papers, etc	46 33	
New steel case	73 00	
Directories	21 00	
List of automobiles	10 30	
Stencils, etc	17 35	
Typwriter supplies, etc	13 50	
Miscellaneous	15 25	
Annual reports	11 00	
Total expenditures		2,188 69
Surplus of credit		$34 31
Balance to surplus, 1911		34 31

COMMISSIONERS OF FINANCE A—VI (14).

Appropriation, expenses	$3,000 00

EXPENDITURES.

Clerical help and extra work	$421 00	
Postage	20 00	
Safe deposit box	120 00	
Printing, etc	83 50	
Stock certificates	1,100 00	
Advertising proposals for city stock	1,213 11	
Total expenditures		2,957 61
Surplus of credit		$42 39
Balance to surplus, 1911		42 39

CITY SEALS A—VI (14).

Receipts for certified copies city ordinances, etc	$53 21
Paid into City Treasury	53 21

AUDITING CITY DEPARTMENTS A—VI (14).

Appropriation	$8,500 00

EXPENDITURES.

Baltimore Audit Company	8,500 00

SUPERVISORS OF ELECTIONS A—VI (15).

Appropriation, salaries	$15,000 00

EXPENDITURES.

Salaries to December 16, 1911:		
Supervisor, Charles H. Carter, President	$2,604 34	
Supervisor, Max Ways	2,500 00	
Supervisor, Harry W. Nice	2,500 00	
Counsel, W. Starr Gephart	1,200 00	
Chief Clerk, James E. Hubbert	2,000 00	
Messenger, John V. Mahon	413 22	
Temporary Clerk, Howard R. Buckley	1,384 23	
Temporary Clerk, Marion McKee	1,074 97	
Temporary Clerk, George N. Lewis	1,076 41	
Total expenditures		14,753 17
Surplus of credit		$246 83
Balance to surplus, 1911		246 83
Appropriation, expenses		$3,909 00

EXPENDITURES.

Storage of election booths and portable houses	$737 50	
Printing and posting notices of registration and election	465 00	
Printing	454 51	
Repairing ballot boxes	210 00	
Rent of C. & P. telephone	134 40	
Costs of mandamus cases	113 75	
Registration supplies	110 42	
Hardware	106 42	
Needles, twine and paper	74 70	
Rent of Maryland telephone	48 00	
Exchange of typewriter	46 00	
Brass flanges	30 78	
Candle holders	21 45	
Cartons	20 37	
Insurance on booths and portable houses	17 88	
Booth curtains	17 50	
Binding receipt books	12 70	
Hire of tables and chairs	8 50	
City Directory	7 00	
Repairing truck	4 00	
Total expenditures		2,640 88
Surplus of credit		$1,268 12
Balance to surplus, 1911		1,268 12

REGISTRATION, SPRING, A—VI (15).

Appropriation		$21,691 00
EXPENDITURES.		
Pay of judges and room rents	$14,760 00	
Stationery	815 00	
Printing and posting registered names	2,106 13	
Printing	942 25	
Advertising	459 46	
Preparing supplies	451 50	
Meal allowance, clerks working overtime	103 00	
Extra counsel	25 00	
Costs of mandamus cases	65 00	
Total expenditures		19,727 34
Surplus of credit		$1,963 66
Balance to surplus, 1911		1,963 66

SPRING PRIMARY ELECTION A—VI (15).

Appropriation		$32,180 00
EXPENDITURES.		
Pay of judges, clerks and room rents	$22,470 00	
Advertising	1,595 65	
Printing of ballots, etc	1,227 35	
Repairing election booths	907 17	
Stationery	459 85	
Printing and posting notices of election	450 00	
Putting up and taking down portable houses and election booths	288 75	
Hauling	240 60	
Lumber	112 67	
Automobile hire	75 00	
Hardware	42 25	
Total expenditures		27,869 29
Surplus of credit		$4,310 71
Balance to surplus, 1911		4,310 71

SPRING ELECTION A—VI (15).

Appropriation		$30,280 00
EXPENDITURES.		
Pay of judges, clerks and room rents	$22,470 00	
Advertising	2,282 60	
Printing ballots, etc	1,932 75	
Stationery	552 27	
Preparing supplies	527 50	
Putting up and taking down election booths and portable houses	340 15	
Hauling and carriage hire	220 55	
Automobile hire	57 00	
Total expenditures		28,382 82
Surplus of credit		$1,897 18
Balance to surplus, 1911		1,897 18

REGISTRATION, FALL, A—VI (15).

Appropriation		$46,315 00
EXPENDITURES.		
Pay of judges and room rents	$36,900 00	
Printing and posting registered names	3,798 34	
Advertising	3,493 87	
Preparing supplies	733 50	
Costs of mandamus cases	159 25	
Additional counsel	100 00	
Examination of registration books	94 00	
Total expenditures		45,278 96
Surplus of credit		$1,036 04
Balance to surplus, 1911		1,036 04

PRIMARY ELECTION, FALL, A—VI (15).

Appropriation		$32,180 00
EXPENDITURES.		
Pay of judges, clerks and room rents	$22,460 00	
Advertising	3,162 24	
Printing ballots, etc	1,359 80	
Printing	1,357 30	
Repairs to election booths	1,067 00	
Stationery	1,211 00	
Hauling and carriage hire	416 90	
Lumber	266 54	
Putting up and taking down election booths and portable houses	240 75	
Meal allowance, clerks working overtime	65 09	
Automobile hire	55 50	
Paper and candles	51 57	
Candle holders	21 45	
Total expenditures		31,735 14
Surplus of credit		$444 86
Balance to surplus, 1911		444 86

GENERAL ELECTION, FALL A—VI (15).

Appropriation		$32,190 00
EXPENDITURES.		
Pay of judges, clerks and room rents	$22,470 00	
Advertising	4,474 59	
Printing ballots, etc	2,869 00	
Repairs to election booths	586 00	
Hauling and carriage hire	490 60	
Putting up and taking down election booths and portable houses	266 75	
Amounts carried forward	$31,156 94	$32,190 00

Amounts brought forward	$31,156 94	$32,190 00
Printing	207 65	
Lumber	196 58	
Automobile hire	126 50	
Meal allowance, clerks working overtime	120 00	
Booth curtains	70 00	
Candles and tacks	49 77	
Total expenditures		31,927 44
Surplus of credit		$262 56
Balance to surplus, 1911		262 56

REVENUE A—VI (15).

Assessment of candidates, Spring, 1911:

Charles R. Whiteford	$25 00
Edward Gross	25 00
Bernard J. Lee	25 00
John D. Spencer	25 00
William W. Stockham	25 00
George W. Graham	25 00
William J. Garland	25 00
Joseph S. Wernig	25 00
John G. Wehage	25 00
Henry J. C. Hoffman	25 00
Matthias C. Angelmier	25 00
Augustus C. Binswanger	25 00
Harry S. Cummings	25 00
John H. Trautfelter	25 00
Timothy O. Heatwole	25 00
Edmund Budnitz	25 00
Daniel Conroy	25 00
Henry A. Ulrich	25 00
William Kalb	25 00
Samuel A. Bersterman	25 00
William Goldsmith	25 00
Samuel L. West	25 00
Charles W. Grant	25 00
Charles A. Jording	25 00
Gustavus A. Koro	25 00
Lewis H. Davenport	25 00
James H. Preston	100 00
Felix T. Riley	25 00
William F. Beiswanger	25 00
Charles H. Heintzeman	25 00
William Weisgerber	25 00
George F. Neeb	25 00
John Hubert	100 00
Michael J. Gaffney	25 00
Duke Bond	25 00
Henry L. Weinefeld	25 00
William H. Hildebrand	25 00
Richard N. Sheckells	25 00
Frederick W. Schmaing	25 00
Francis P. Curtis	25 00
Amount carried forward	$1,150 00

Amount brought forward	$1,150 00
James F. Thrift	100 00
Samuel Lasch	25 00
Albert C. Tolson	25 00
Lawrence J. McCormick	25 00
Frederick Vollbracht, Jr	25 00
John F. Gettemuller	25 00
George W. Green	25 00
J. Webb Thomas	25 00
Patrick J. Kyne	25 00
Robert E. Lee	25 00
George L. Durm	25 00
Daniel C. McGonigle	25 00
Charles G. Griebel	25 00
George Heller	25 00
George R. Wicklein	25 00
Maxwell Suls	25 00
James J. Jung	25 00
Michael H. Noon	25 00
J. J. Rokos	25 00
George R. Heffner	100 00
John E. Benson	25 00
Edward W. Klein	25 00
George J. Schedel	25 00
William L. Lang	25 00
E. Clay Timanus	100 00
Gustav Krause	25 00
George N. Numsen	100 00
Louis P. Kornmann	25 00
J. George Hofmeister	25 00
Geo. R. Kraft	25 00
Lindsay C. Spencer	25 00
Edwin R. Downes	25 00
Samuel Affelder	25 00
Wm. H. Parker	25 00
Frank W. Dryden	100 00
Frederick W. Wilcox	25 00
Chas. H. Torsch	100 00
George Stewart Brown	100 00
John C. Distler	25 00
Samuel H. Foulke	25 00
William F. Allen	25 00
R. Sanchez Boone	25 00
John A. Siebert	25 00
William Hiller	25 00
George Gebelein	25 00
B. Frank Kelley	25 00
W. W. Cherry	100 00
J. Barry Mahool	100 00
Henry Rapp	25 00
William T. Holmes	25 00
J. Frank Crowther	25 00
Wm. H. E. Chase	25 00
James J. Carmody	25 00
William E. Brown	25 00
James D. Hugnes	25 00
Jefferson D. Norris	25 00
Amount brought forward	$3,225 00

Amount brought forward	$3,225 00
J. Henry Baker	25 00
William B. Smith	25 00
Louis D. Greene	25 00
James C. Jenkins	25 00
William C. Rath	25 00
Eugene Cronin	25 00
Matthew J. McDermott	25 00
Charles A. Kelso	25 00
George Wittmer	25 00
Isaac Frank	25 00
John F. O'Meara	25 00
Addison E. Mullikin	100 00
Oliver J. Allenbaugh	25 00
Harry C. Kilmer	25 00
Andrew I. Wright	25 00
Geo. H. Everhart	25 00
Frank I. Musgrove	25 00
Total	$3,725 00
Paid into City Treasury	3,725 00

ASSESSMENTS OF CANDIDATES, FALL, 1911. A—VI (15).

Henry Stockbridge	$100 00
Wiliam A. Wheatley	100 00
Carroll T. Bond	100 00
Henry Arthur Stump	100 00
Geo. Carey Lindsay	100 00
Emory L. Stinchcomb	100 00
Albert S. J. Owens	100 00
Myer J. Block	100 00
William M. Dunn	100 00
Harry C. Gaither	100 00
Robert H. Carr	100 00
William Milnes Maloy	25 00
Lloyd Wilkinson	25 00
George M. Fink	25 00
Morris A. Soper	40 00
Phillips Lee Goldsborough	40 00
John H. Cunningham	40 00
Blair Lee	40 00
James A. Dawkins	25 00
Arthur P. Gorman	40 00
Edward A. Wiedefield, Jr	25 00
William Harry Pairo	25 00
Edgar Allan Poe	40 00
Rufus W. Applegarth	25 00
Allen W. Beam	25 00
William H. Maltbie	25 00
Charles G. Gordon	25 00
William O. Atwood	100 00
William S. Evans	40 00
Emerson C. Harrington	40 00
John C. Ritzel	25 00
Wiliam Allen	25 00
Amount carried forward	$1,820 00

Amount brought forward	$1,820 00
John R. Fisher	25 00
Thomas F. McNulty	100 00
Edwin T. Dickerson	100 00
Augustus M. Denhard	100 00
William F. Broening	100 00
Edward L. Taylor	25 00
James Quinn Farmer	25 00
Thomas L. Parks	25 00
Roger T. Gill	100 00
J. Henry Baker	100 00
John W. Williams	25 00
Charles P. Coady	25 00
Peter J. Campbell	25 00
Augustus DeR. Sappington	100 00
J. Albert Hughes	100 00
Abraham M. Zimmers	25.00
Robert F. Stanton	100 00
Bernard J. Flynn	25 00
Anthony J. Svejda	25 00
George F. Cooper	25 00
Walter I. Dawkins	100 00
Mark O. Shriver, Jr	25 00
Charles D. Courtney	25 00
William W. Burnett	25 00
W. Wallace Hellmann	25 00
John G. Scott	25 00
Robert J. Beacham	25 00
Harry E. Carman	25 00
James R. Cadden	25 00
William A. Bryan	25 00
John G. Jeffers	25 00
Jacob F. Murbach	25 00
James A. McQuade	25 00
Granville Smith	25 00
George F. Beavin	25 00
George D. Iverson	25 00
Lindsay C. Spencer	100 00
John C. Linthicum	25 00
Theo. P. Weis	100 00
Philip G. Schwaab	25 00
J. Henry Strohmeyer	100 00
George M. Abendschoen	25 00
Eugene O'Dunne	100 00
William S. Klug	25 00
George C. Buckless	25 00
Vaclav E. Kalous	25 00
Wm. E. McHugh	25 00
Louis P. Salganik	25 00
Levi A. Thompson	100 00
John A. Janetzke, Jr	25 00
Chas. E. Turner	25 00
Joseph L. Wickes	100 00
Harry G. Shakespeare	25 00
David L. Harrison	25 00
James McC Trippe	25 00
Julius E. Heronemus	25 00
Amount carried forward	$4,420 00

Amount brought forward	$4,420 00
T. Howard Embert	25 00
David Stein	25 00
Chas. Newman	25 00
J. Booker Clift	25 00
T. Leigh Marriott	25 00
Archibald H. Taylor	100 00
George W. Cameron	25 00
John L. Sebald	25 00
Herman W. Baake	25 00
Tolley A. Biays	100 00
John H. Bouse	25 00
Francis I. Mooney	25 00
John S. J. Healy	25 00
Archer H. Jarrett	25 00
Anthony Dimarco	25 00
Fred'k W. Brunier	25 00
John E. McCusker	25 00
Andrew I. Wright	25 00
Henry W. Rowland	25 00
Henry A. Repson	25 00
Total	$5,070 00
Sale of old papers, books, etc	36 25
Total	$5,106 25
Paid into City Treasury	5,106 25

CITY LIBRARY A—VI (16).

Appropriation, salaries		$4,500 00
Transferred from Contingent Fund		16 67
Total credits		$4,516 67
EXPENDITURES.		
City Librarian, Wilbur F. Coyle	$2,041 59	
1st Asistant City Librarian, G. Elmer Kirwan	1,033 41	
2nd Assistant City Librarian, Raymond M. Duvall, to February 28	187 50	
2nd Assistant City Librarian, Harry L. Johnson, two days in April	4 17	
2nd Assistant City Librarian, Harry L. Johnson, from May 1	468 75	
Clerk, William H. Soine	781 25	
Total		4,516 67
Appropriation, expense		$22,715 00
EXPENDITURES.		
Appeal Tax Court	$745 83	
Board of Fire Commissioners	3,273 56	
City Collector	1,720 10	
City Comptroller	263 09	
City Engineer	1,407 38	
City Jail	283 55	
Amounts carried forward	$7,693 51	$22,715 00

Amounts brought forward	$7,693 51	$22,715 00
City Library, purchase pictures, framing, boy's service, etc.	2,435 14	
City Register	895 15	
City Solicitor	328 49	
Commissioners for Opening Streets	178 25	
Commissioners Street Cleaning	308 37	
Harbor Board	100 17	
Department Legislative Reference	48 23	
Free Public Bath Commission	267 10	
Health Department	4,667 56	
Inspector of Buildings	569 67	
Mayoralty	256 36	
School Board	2,482 92	
Supervisor of City Charities	885 69	
Superintendent Lamps and Lighting	233 55	
Superintendent Public Buildings	10 07	
Topographical Survey Commission	181 17	
Total	$21,571 40	
Less refund deduction from T. A. Biays Co. for supplies not delivered as per contract, purchased in open market	67 38	
Total expenditures		21,504 02
Surplus of credit		$1,210 98
Balance to surplus, 1911		1,210 98

ADVERTISING LAWS A—VI (16).

Appropriation	$2,000 00
Contingent Fund	629 38
Total receipts	$2,629 38

EXPENDITURES.

A. S. Abell Co	$510 75	
Daily Record	213 08	
Journal Co.	167 58	
Baltimore News	298 88	
Evening Star	260 16	
C. C. Fulton Co.		
E. Raine	428 75	
Labor Leader	148 25	
Building Trades Journal	159 05	
Democratic Telegram	113 87	
Total expenditures		2,629 38

PRINTING CITY CHARTER A—VI (16).

Transferred from Contingent Fund	$400 00

EXPENDITURES.

King Bros—1,000 copies	400 00

CITY LIBRARY, REVENUE, A—VI (16).

Sales City Code, Franchise Code, Indexes to Ordinances and Resolutions, Charters, Records of Baltimore, etc.	$165 00
Paid into City Treasury	165 00

SUPERINTENDENT OF PUBLIC BUILDINGS A—VI (17).

Appropriation, City Hall, salaries	$16,723 33

EXPENDITURES.

Salaries to December 16, 1911:		
Superintendent, Geo. T. Ames, twelve and a half months	$2,083 33	
Clerk to Superintendent, Hugh Doyle	1,187 50	
Watchman, James Callahan	720 00	
Watchman, Thomas Riggan	720 00	
Watchman, R. S. Jones	720 00	
Watchman, L. C. Johnson, one-half month	30 00	
Watchman, Wm. N. Conner, eleven and a half months	690 00	
Fireman, John F. Cain	900 00	
Fireman, Hans Koch	900 00	
Fireman, Peter J. Hagan, 7 months, 16 days	565 00	
Fireman, Lewis Schwind, 14 days	35 00	
Fireman, Carroll McGee, 4 months	300 00	
Laborer, James H. Long	520 00	
Laborer, Louis P. Simpson	520 00	
Window Polisher, Augustus Watts	520 00	
Elevator Conductor, Alva B. Montague	720 00	
Superintendent Charwomen, Mary E. Arnold, 11 months	440 00	
Superintendent Charwomen, Lilian Fitzgerald, 1 month	40 00	
Charwoman, Elizabeth Cunningham	300 00	
Charwoman, Louisa Marks	300 00	
Charwoman, Ann C. Cromwell	300 00	
Charwoman, Ellen Donegan	300 00	
Charwoman, Florence Drury	300 00	
Charwoman, Frances Furst	300 00	
Charwoman, Ellen Haney	300 00	
Charwoman, Annie Heath	300 00	
Charwoman, Mary Keys	300 00	
Charwoman, Latila Bennett	300 00	
Charwoman, Sarah A. Mettee	300 00	
Charwoman, Barbara Wagner	300 00	
Charwoman, Catharine Slaughter	300 00	
Charwoman, Julia Martin	300 00	
Charwoman, Margaret Vorlaufer, 11 months	275 00	
Charwoman, Mary E. Arnold, 1 month	25 00	
Charwoman, Annie S. Wilson	300 00	
Charwoman, Kate Herman	300 00	
Total expenditures		16,710 83
Surplus of credit		$12 50
Balance to surplus, 1911		12 50

CITY HALL EXPENSES A—VI (17).

Appropriation		$11,100 00
EXPENDITURES.		
New furniture	$2,047 15	
Lighting, gas and electric supplies	588 42	
General supplies	817 87	
General repairs	388 46	
Towel service	157 40	
Furniture repairs	907 50	
Ice	424 07	
Curtains	205 85	
Carpets, floor covering and draperies	1,876 48	
Coal and wood	3,119 00	
Carpet cleaning	132 17	
Incidentals, labor, etc	435 63	
Total expenditures		11,100 00

CITY HALL ANNEX, SALARIES A—VI (17).

Appropriation		$5,820 00
EXPENDITURES.		
Salaries to December 16, 1911:		
Janitor and fireman, Robert Krauter, ½ month	$30 00	
Janitor and fireman, Wm. A. Hebler, 11½ months	690 00	
Watchman, Geo. Kimerle	720 00	
Watchman, Robert W. Hays	720 00	
Watchman and janitor, Robert Posey, 29 days	57 10	
Watchman and janitor, Patrick Lee, 10 months, 16½ days	632 90	
Watchman, James F. Busey, 11½ months	690 00	
Watchman, Adolph Statter, 11½ months	690 00	
Charwoman, Dollie Reed	300 00	
Charwoman, Sarah McGuirk	300 00	
Charwoman, Clementine Anderson	300 00	
Charwoman, Dora Keller	300 00	
Charwoman, M. A. Miskimons, 11½ months	287 50	
Total expenditures		$5,717 50
Surplus of credit		$102 50
Balance to surplus, 1911		102 50

CITY HALL ANNEX, EXPENSES, A—VI (17).

Appropriation		$8,200 00
EXPENDITURES.		
Lighting, gas and electric appliances	$1,911 02	
General supplies	274 97	
General repairs	190 22	
Carpets and floor covering	263 58	
Coal and wood	1,572 50	
Ice	173 00	
Rent	3,300 00	
Incidentals, labor, etc	174 86	
New furniture	339 85	
Total expenditures		8,200 00

COURT HOUSE, SALARIES, A—VI (17).

Appropriation, ... $33,840 00

EXPENDITURES.

Salaries to December 16, 1911:		
Assistant Superintendent, Matthew J. Dunn.....	$1,200 00	
Chief Engineer, John H. Fridinger.....	1,200 00	
Asistant Engineer, Geo. C. Mitchell, 1 month 1½ days	78 63	
Assistant Engineer, Fred. Brandow, 1 month, 14 days	108 87	
Assistant Engineer, G. W. Chelton, 9 months, 15 days...	712 50	
Assistant Engineer, James B. Shields, 1 month, 19 days	123 21	
Assistant Engineer, Lee E. Norfolk, 10 months, 10 days	776 79	
Chief Electrician, C. D. Boyle.....	1,200 00	
Assistant Electrician, Charles J. Kelly.....	900 00	
Assistant Electrician, Thomas J. Murphy.....	900 00	
Fireman, Patrick Gough	900 00	
Fireman, William Murphy	900 00	
Fireman, William Collins	900 00	
Utility Man, J. W. Fitzpatrick.....	600 00	
Utility Man, Stephen Arata, 11 months, 15 days..	575 00	
Watchman, Lambert H. Thiess.....	720 00	
Watchman, James Shearon	720 00	
Watchman, Patrick Nixon.....	720 00	
Watchman, Patrick Lee	720 00	
Watchman, Wm. N. Conner, 15 days.....	30 00	
Watchman, L. C. Johnson, 11 months, 9 days.....	678 39	
Watchman, Sam. J. Shield	720 00	
Elevator Man, Walter McGreevy, 11 months, 28 days	716 00	
Elevator Man, Adolph O. Statter, 15 days.....	30 00	
Elevator Man, W. J. Shriver, 11 months, 15 days	690 00	
Elevator Man, James D. Ross, 11 months, 6 days..	672 00	
Elevator Man, Patrick McDermott, 24 days.....	48 00	
Elevator Man, John B. Green, 15 days.....	30 00	
Elevator Man, Geo. W. Meyer, 11 months, 15 days..	690 00	
Elevator Man, Robert Dowell.....	720 00	
Janitor, Pat. A. Vaughan.....	720 00	
Marble Polisher, Herman A. Barth.....	720 00	
Assistant Polisher, Thomas Dowd.....	580 00	
Furniture Polisher, Geo. W. Meyer, 15 days.....	25 00	
Furniture Polisher, John B. Green, 11 months, 15 days	690 00	
Window Polisher, Henry Kelly, 11 months, 26 days	514 23	
Window Polisher, James W. Brown, 11 months, 28 days	517 21	
Laborer, Stephen Arata, 15 days.....	21 66	
Laborer, Bernard Foit	520 00	
Laborer, William Hickey	520 00	
Laborer, Philip Desch	520 00	
Court Matron, Mary Malone, 4 months, 15 days....	112 50	
Court Matron, Agnes Wilson, 7 months, 15 days...	187 50	
Superintendent of Charwomen, Mary Freeman....	480 00	
Amounts carried forward.....	$25,107 49	$33,840 00

Amounts brought forward	$25,107 49	$33,840 00
Charwoman, Delia Cole	300 00	
Charwoman, Gertrude Meyler	300 00	
Charwoman, Fannie Florenyeck	300 00	
Charwoman, Maggie Carmine	300 00	
Charwoman, Maggie Thistlewaite	300 00	
Charwoman, Margaret Quinn	300 00	
Charwoman, Kate Hagerty	300 00	
Charwoman, Annie Noor	300 00	
Charwoman, Annie Lembeck	300 00	
Charwoman, Mary Lundy	300 00	
Charwoman, Ellen Leonard	300 00	
Charwoman, Mollie Moffett	300 00	
Charwoman, Mary T. McLoughlin	300 00	
Charwoman, Julia A. Proffin	300 00	
Charwoman, Ellen Redmond, 5 months, 8 days	131 85	
Charwoman, Mary E. Burdett, 6 months, 22 days	168 15	
Charwoman, Kate Rausch	300 00	
Charwoman, Cecelia Geyer	300 00	
Charwoman, Mary E. Dunn	300 00	
Charwoman, Ida Smith	300 00	
Charwoman, Theresa Schone	300 00	
Charwoman, Annie Hogan, 11 months	275 00	
Charwoman, Margaret Vorlaufer, 1 month	25 00	
Charwoman, Maggie Sumwalt	300 00	
Charwoman, Mary Twist	300 00	
Charwoman, Tina Thomas	300 00	
Charwoman, Maggie Fowler	300 00	
Charwoman, Maggie McKenna	300 00	
Charwoman, Catherine Weber	300 00	
Charwoman, Lena Fitzpatrick	300 00	
Charwoman, Alice Miller	300 00	
Total expenditures		33,807 49
Surplus of credit		$32 51
Balance to surplus, 1911		32 51

COURT HOUSE, EXPENSES, A—VI (17).

Appropriation		$27,600 00
EXPENDITURES.		
Supplies, incidentals, etc	$4,002 84	
Coal and wood	7,709 30	
Ice	326 89	
Towel service	115 95	
Electric lamps	873 67	
General repairs	508 29	
Furniture repairs	279 01	
New furniture, carpets, etc	1,844 40	
Electric lighting	10,855 80	
Total expenditures		26,516 15
Surplus of credit		$1,083 85
Balance to surplus, 1911		1,083 85

NEW ELEVATORS, COURT HOUSE, A—VI (17).

Appropriation	$7,244 00

EXPENDITURES.

Otis Elevator Company, elevators	7,244 00

REVENUE.

Received from sale of old paper, junk, etc.	$224 35
Paid into City Treasury	224 35

ADDITIONAL SANITARY ROOM, CITY HALL, A—VI (17).

Amount forward from 1910	$5,323 04

EXPENDITURES.

None.

Surplus of credit	5,323 04
Balance carried forward to 1912	5,323 04

CONTINGENT FUND A—VI (18).

Appropriation	$50,000 00

EXPENDITURES.

J. B. Newbold, refund tax sales	$294 26	
City Surveyor, expenses	240 00	
Lot, School No. 4	203 30	
Printing New Charter	400 00	
Refund interest on taxes, M., D. & V. R. R.	12 69	
Refund interest on taxes, B., C. & A. R. R.	2 75	
Lowering Eutaw street drain	2,400 00	
Repairs to city property	150 00	
Bay View Asylum, expenses	1,695 25	
Widening Creamer alley, advertising	77 40	
Widening Little Greene street, advertising	68 10	
Appeal Tax Court, expenses	73 00	
Topographical Survey Commission, expenses	50 00	
Underpinning buildings, B. & O. crossing, Eutaw street, etc.	5,500 00	
Harbor Board, City Planning Exhibition	200 00	
Thirty-fifth street, gutter and curb	390 00	
Advertising laws	629 38	
Factory Site Commission	3,000 00	
Opening Garrison avenue, advertising	15 11	
Sale land, etc., Old Marine Hospital, advertising	125 77	
Opening Frederick avenue, advertising	29 65	
Opening Milton avenue, advertising	41 40	
Opening Taylor or Adams street, advertising	31 05	
Opening McPhail street, advertising	46 20	
Habitual drunkards	1,425 00	
Law Department, expenses	500 00	
Hose for various markets	43 45	
Circuit Court No. 2	267 50	
Board of Estimates	229 36	
Amounts carried forward	$18,140 62	$50,000 00

Amounts brought forward	$18,140 62	$50,000 00
City Collector, expenses	300 00	
Registration appeals	74 75	
City Librarian, salaries	16 67	
Coroners, Dr. Sudler (deceased), salary	83 33	
Water Department, expenses	1,000 00	
Criminal Court, expenses	6,727 86	
Railroad siding and tramway, coal crusher, Bay View	1,500 00	
Survey, No. 37 School	43 00	
Total expenditures		27,886 23
Surplus of credit		$22,113 77
Balance to surplus, 1911		22,113 77

BOARD OF LIQUOR LICENSE COMMISSIONERS A--VI (18).

Appropriation, salaries		$14,100 00

EXPENDITURES.

S. S. McKim, Commissioner	$2,500 00	
James Bond, Commissioner	2,500 00	
Benjamin B. Shreeves, Commissioner	2,291 67	
George S. Brown, Counsel	1,200 00	
Washington Bowie, Chief Clerk	1,800 00	
John R. Hudgins, Clerk	1,500 00	
Wm. H. Kelly, Clerk	1,400 00	
Augusta A. Aidt, Clerk and Stenographer	700 00	
Total expenditures		13,891 67
Surplus of credit		$208 33
Balance to surplus, 1911		208 33
Appropriation, expenses		$3,300 00

EXPENDITURES.

Laundry	$18 00	
Stamps	13 56	
City Directory	7 00	
Stationery, books and blanks	383 40	
Advertising	2,157 09	
Telephone	146 00	
Typewriter	51 00	
Water	13 60	
Repairs to clock, typewriter and numbering machine	4 95	
Affidavits	40	
Total expenditures		2,795 00
Surplus of credit		$505 00
Balance to surplus, 1911		505 00

TOPOGRAPHICAL SURVEY COMMISSION A—VI (18).

Appropriation, salaries $12,580 00

EXPENDITURES.

Joseph W. Shirley, Chief Engineer	$2,426 08	
R. N. Hanna, Assistant Engineer	1,343 75	
M. Blundon, Assistant Engineer	1,343 75	
L. B. Mather, Draughtsman	1,200 00	
J. C. Grinnalds, Draughtsman	382 50	
Wm. R. G. Irwin, Draughtsman	892 50	
J. J. Collins, Transitman	900 00	
Charles Poske, Clerk	753 67	
E. J. Hecker, Transitman	772 50	
T. D. Edmonston, Rodman	600 00	
R. Alexander, Rodman	600 00	
William B. Johnston, Rodman	600 00	
F. L. Campbell, Blueprinter	600 00	
Joseph Fox, Rodman	48 38	
Total expenditures		12,463 14
Surplus of credit		$116 86
Balance to surplus, 1911		116 86
Appropriation, expenses		$1,700 00
Contingent Fund		50 00
Total credits		$1,750 00

EXPENDITURES.

Blueprint, negative and black line print paper and blueprint muslin	$773 76	
Paste	7 20	
Bichromate of potash	37 74	
Ceiling fan, blueprint room	21 65	
Machine repairs	1 25	
Balance due on blueprint washer	200 00	
Electric globes and carbons for blueprint machine	19 20	
Gas	6 54	
Building negative tank	41 57	
Lining negative tank with zinc	9 00	
Receipt books for blueprint rooms	1 00	
Nails	80	
Repairs to surveying instruments	43 65	
Subscription to daily papers	4 78	
Muslin for mounting maps	26 31	
Tape oil	2 75	
Expressage and freight	5 02	
Car tickets	100 00	
Steel tape	3 00	
Numbering machine	5 00	
Iron pipe	10 00	
Annual report	22 50	
Framing picture for City Planning Convention	10 25	
Chief Engineer's expenses as delegate to City Planning Conference, Philadelphia	39 75	
Amounts carried forward	$1,392 72	$1,750 00

Amounts brought forward	$1,392 72	$1,750 00
Postage and postal cards	19 00	
Bond premium	5 00	
Drawing instruments and case for same	60 66	
Stakes	5 25	
Loose leaf book	85	
Binding computation books	4 50	
Wrecking northeastern boundary stone	50 30	
Concrete boxes for boundary stones and traverse points	38 00	
Ream bond paper	15 00	
Boundary stone lids	71 50	
Filing cabinet	20 00	
Miscellaneous	18 92	
Total expenditures		1,701 70
Surplus of credit		$48 30
Balance to surplus, 1911		48 30

REVENUE.

Sale topographical sheets	$22 50
Blueprints	1,895 23
	$1,917 73
Paid into City Treasury	1,917 73

DEPARTMENT OF LEGISLATIVE REFERENCE A—VI (18).

Appropriation, salaries		$3,080 00
EXPENDITURES.		
Horace E. Flack	$2,000 00	
Cataloguer, Miss Mary S. Wallis	450 00	
Cataloguer, Miss Ella S. Hitchcock	150 00	
Stenographer, Miss Nellie W. Mewshaw	480 00	
Total expenditures		3,080 00
Appropriation, expenses		$550 00
EXPENDITURES.		
Books	$53 40	
Magazines and newspapers	57 63	
Expenses attending National Municipal League at Richmond	26 80	
Postage	183 00	
City Directory	7 00	
Express	10 10	
Bookcases	32 00	
Catalogue cards, filing boxes, etc	53 07	
Card cabinets	40 62	
Printing	8 10	
Expenses for clipping and typewriting	19 85	
Telegrams	1 75	
Repairs to typewriter	50	
Total expenditures		493 82
Surplus of credit		$56 18
Balance to surplus, 1911		56 18

BOARD OF ESTIMATES A—VI (18).

Appropriation		$1,000 00
Transferred from Contingent Fund		229 36
Total credits		$1,229 36
EXPENDITURES.		
Dulany-Vernay Co., printing appropriation books	$336 20	
E. Raine Co., advertising Board of Estimates, appropriations	202 50	
C. C. Fulton & Co., advertising Board of Estimates, appropriations	264 08	
Stenographer, typewriter, etc	426 58	
Total expenditures		1,229 36

BOARD OF PUBLIC IMPROVEMENTS A—VI (18).

Appropriation		$600 00
EXPENDITURES.		
Stenographer, typewriter, etc		500 00
Surplus of credit		$100 00
Balance to surplus, 1911		100 00

MUNICIPAL TELEPHONE EXCHANGE A—VI (18).

Appropriation	$21,892 00
Received from Collector of Water Rents and Licenses	136 74
Received from Electrical Commission	324 75
Received from Park Board	648 24
Received from Register of Wills	139 66
Received from Sewerage Commission	1,433 03
Received from Harbor Board	61 85
Received from Supervisors of Elections	69 90
Received from Chesapeake and Potomac Telephone Company, refund	187 35
Received from various departments for tolls	109 50
Received from Supervisors of City Charities	64 50
Received from Board of Fire Commissioners	5 60
Total receipts	$25,073 12
EXPENDITURES.	
Chesapeake and Potomac Telephone Company	22,466 07
Surplus of credit	$2,607 05
Balance to surplus, 1911	2,607 05

CITY CAR TICKETS A—VI (18).

Balance from 1910		$76 40
Purchased from United Railways and Electric Co		13,750 00
Total		$13,826 40
DISTRIBUTION.		
Appeal Tax Court	$280 00	
Board of School Commissioners	133 50	
Bay View Asylum	53 50	
Amounts carried forward	$467 00	$13,826 40

Amounts brought forward	$467 00	$13,826 40
Commissioners for Opening Streets	100 00	
Collector of Water Rents and Licenses	140 00	
Commissioner of Street Cleaning	770 00	
City Engineer	2,300 00	
Commission on City Plan	29 20	
City Librarian	20 00	
City Comptroller	10 20	
Electrical Commission	750 00	
Free Public Bath Commission	275 00	
Health Department	3,150 00	
Inspector of Buildings	1,500 00	
Juvenile Court	170 00	
Mayoralty	20 00	
Municipal Factory Site Commission	10 00	
Park Board	710 00	
Quarantine Hospital	20 00	
Paving Commission	100 00	
Supervisors of City Charities	205 00	
Superintendent of Lamps and Lighting	60 00	
Sydenham Hospital	90 00	
Superintendent of Public Buildings	10 00	
Topographical Survey Commission	100 00	
Water Department	2,567 50	
Balance on hand	252 50	
Total distribution		13,826 40

POSTAGE STAMP ACCOUNT A—VI (18).

Balance from 1910	$71 76
Purchased from United States Postoffice Department	7,396 96
Total	$7,468 72

DISTRIBUTION.

Appeal Tax Court	$270 00	
Board of School Commissioners	654 46	
Bay View Asylum	57 51	
City Collector	417 99	
City Register	256 00	
City Comptroller	82 95	
City Engineer	225 00	
City Jail	50 00	
City Librarian	25 00	
Commissioners for Opening Streets	20 00	
Collector of Water Rents and Licenses	193 00	
Department of Legislative Reference	183 00	
Electrical Commission	95 00	
Commissioner of Street Cleaning	80 00	
Commissioner of Health	2,180 00	
Board of Fire Commissioners	97 32	
Free Public Bath Commission	57 00	
Harbor Board	55 00	
Inspector of Buildings	70 00	
Juvenile Court	109 94	
Law Department	58 04	
Amounts carried forward	$5,237 21	$7,468 72

Amounts brought forward	$5,237 21	$7,468 72
Mayoralty	393 50	
Park Board	139 00	
Quarantine Hospital	10 00	
Superintendent City Charities	314 00	
Sydenham Hospital	53 09	
Superintendent Lamps and Lighting	38 50	
Sewerage Commission	505 00	
Superintendent Public Buildings	4 15	
Topographical Survey Commission	19 00	
Water Department	270 00	
Commission on City Plan	23 50	
Municipal Factory Site Commission	102 00	
Paving Commission	13 25	
Diary City Council expenses	195 00	
Balance on hand	151 52	
Total distribution		7,468 72

MUNICIPAL FACTORY SITE COMMISSION A—VI (18).

Transferred from Contingent Fund, salaries and expenses		$3,000 00
EXPENDITURES.		
A. S. Goldsborough, salary	1,312 42	
Oscar C. Hook, salary	390 00	
A. S. Goldsborough, traveling expenses	19 60	
Lucas Bros., printing, stationery, etc	55 00	
Minch & Eisenbrey, furniture, etc	211 65	
Monarch Typewriter Co., typewriter	81 81	
Dulany-Vernay Co., stationery, etc	134 61	
Dr. W. P. Morrill, traveling expenses	14 00	
M. Evans, typewriting	15 00	
Rollman & Schloss, printing	188 00	
Miscellaneous, postage, car tickets, newspapers, etc.	263 24	
Total expenditures		2,691 33
Surplus of credit		$308 67
Balance to surplus, 1911		308 67

PUBLIC SERVICE COMMISSION A—VI (18).

Appropriation, salaries		$14,291 55
EXPENDITURES.		
Chairman, Jas. M. Ambler, salary, May 2, 1910, to December 15, 1911	$4,866 93	
Commissioner, Philip D. Laird, salary, May 2, 1910, to December 15, 1911	3,244 61	
Comissioner, Joshua Herring, salary, June 1, 1910, to December 15, 1911	3,083 33	
General Counsel, W. Cabell Bruce, salary, June 10, 1910, to December 15, 1911	2,730 00	
Total expenditures		13,924 87
Surplus of credit		$366 68
Balance to surplus, 1911		366 68

PUBLIC SERVICE COMMISSION, REVENUE, A—VI (18).

Received from various sources	$327 21
Paid into City Treasury	327 21

2. PUBLIC SAFETY

POLICE DEPARTMENT A—VI (19)

Appropriation, salaries $1,179,542 00

EXPENDITURES.

Commissioner, John B. A. Wheltle	$2,500 00	
Commissioner, C. Baker Clothworthy	2,500 00	
Comissioner, Peter E. Tome	2,500 00	
Secretary, Josiah A. Kinsey	2,500 00	
Assistant Secretary, Robert G. Claypoole	1,800 00	
Counsel, Alonzo L. Miles	2,000 00	
Marshal, Thomas F. Farnan	3,400 00	
Deputy Marshal, James Manning	2,800 00	
Secretary to Marshal, John Swigert, Jr	1,800 00	
Police Physician, George R. Reynolds	1,500 00	
Police Physician, Dudley Williams	1,000 00	
Police Physician, Wm. K. Hall	1,000 00	
Police Physician, Thomas J. O'Donnell	1,000 00	
Police Physician, James G. Linthicum	1,000 00	
10 Captains	21,320 00	
21 Lieutenants	29,900 00	
25 Detectives	32,492 86	
17 Round Sergeants	20,792 86	
132 Squad Sergeants	151,877 44	
725 Patrolmen	753,598 72	
16 Turnkeys	15,920 00	
8 Station House Clerks	8,091 43	
65 Probation Officers	47,244 14	
1 Superintendent of Matrons	1,040 00	
18 Matrons and Substitutes	13,735 73	
4 Boat Engineers and Firemen	3,952 00	
5 Electrical Linemen	5,040 02	
2 Stenographers	1,972 00	
1 Station House Fireman	770 00	
6 Hostlers	5,341 29	
19 Drivers	14,397 69	
14 Janitresses	5,803 93	
1 Stable Foreman	1,141 14	
16 Telephone Operators	12,437 15	
1 Laborer	560 00	
Total expenditures		1,174,728 40
Surplus of credit		$4,813 60
Balance to pensioners, 1912		4,813 60
Appropriation, expenses		$83,775 00

EXPENDITURES.

Gas and electric lighting	$3,867 25	
Badges, numbers, etc	20 20	
Ice	333 52	
Amounts carried forward	$4,220 97	$83,775 00

Amounts brought forward		$4,220 97	$83,775 00
Fuel		4,248 59	
Stationery and printing		3,831 16	
Advertising		265 37	
Revolvers and ammunition		41 68	
Electrical supplies		10,084 81	
Station-house supplies		2,156 38	
Repairs to station-houses		375 11	
Rental of stables		93 00	
Horses		1,185 00	
Harness and wagons		28,904 03	
Miscellaneous stable expenses		443 65	
Shoeing of horses		1,234 50	
Feed and bedding		5,652 31	
Meals for officers and prisoners		2,011 15	
Rental of telephones		2,544 62	
Incidental expenses, headquarters		6,580 46	
Police Patrol Boats—			
Repairs	$1,735 17		
Supplies	1,186 84		
Insurance	150 00		
		3,072 01	
Bonding of officers		672 50	
Total expenditures			77,617 30
Surplus of credit			$6,157 70
Balance to surplus, 1911			6,157 70

POLICE EXAMINERS A—VI (19).

Appropriation, salaries			$4,800 00
EXPENDITURES.			
Salaries to December 1, 1911:			
Police Examiner, J. Y. Brattan		$1,200 00	
Police Examiner, Yates Pennington		1,200 00	
Police Examiner, J. D. Norris		480 00	
Police Examiner, J. Marsh Matthews		677 42	
Secretary to Police Examiner, M. W. Dix		1,200 00	
Total expenditures			4,757 42
Surplus of credit			$42 58
Balance to surplus, 1911			42 58
Appropriation, expenses			$912 00
EXPENDITURES.			
Printing and stationery		$152 36	
Advertising in various papers		28 80	
Telephone		26 68	
Janitress		325 00	
Hiring of chairs, etc		94 00	
Ice, towels, etc		32 10	
Operators for examination questions, etc		252 65	
Total expenditures			911 59
Surplus of credit			$0 41
Balance to surplus, 1911			41

PENSIONERS A—VI (19)

Appropriation,		$15,574 89
Balance brought forward from 1910		7,503 43
Total credits		$23,078 32

EXPENDITURES.

Retired officers of the Police Department:		
Eastern District	$3,299 78	
Northeastern District	4,175 03	
Northern District	1,747 79	
Central District	5,164 38	
Western District	3,171 92	
Northwestern District	2,341 07	
Southern District	4,263 88	
Southwestern District	2,648 43	
Headquarters	175 74	
Total expenditures	$26,988 02	
Paid by Police Department	3,909 70	
Paid by city		23,078 32

The above covers but four months, the balance of the year being paid by the Police Department out of their own funds, and over which the city has no control, it being a State institution, the city being responsible for its expenses and any deficiency in Pension Fund.

FIRE DEPARTMENT A—VI (20).

Appropriation, salaries		$723,360 00

EXPENDITURES.

President, Edward M. Parrish	$1,129 17	
President, Richard H. Johns	370 82	
Commissioner, Gilles J. Shaw	752 66	
Commissioner, A. Roszel Cathcart	403 58	
Commissioner, Israel Rosenfeld	247 18	
Commissioner, Sidney T. Manning	563 80	
Secretary and Clerk, Pinkney W. Wilkinson	1,643 75	
Acting Assistant Clerk, Maurice W. Uhler	900 00	
Chief Engineer, George W. Horton	2,750 00	
Deputy Chief Engineer, August Emrich	2,000 00	
District Engineer, James T. Dunn	1,500 00	
District Engineer, James A. Campbell	1,500 00	
District Engineer, Frederick Branan	1,500 00	
District Engineer, E. Louis Shipley	1,500 00	
District Engineer, Levin H. Burkhardt	1,500 00	
District Engineer, John Kahl	1,500 00	
District Engineer, Fielding H. Lucas	1,500 00	
District Engineer, Michael A. Lind	1,500 00	
Superintendent of Machinery, Thomas H. Meushaw	1,500 00	
Assistant Superintendent of Machinery, John N. Bletzer	1,200 00	
Superintendent of Fire Alarm Telegraph, James B. Yeakle	2,000 00	
No. 1 Engine Company	11,720 28	
No. 2 Engine Company	12,262 89	
No. 3 Engine Company	12,316 78	
Amounts carried forward	$63,760 91	$723,360 00

Amounts brought forward	$63,760 91	$723,360 00
No. 4 Engine Company	12,320 71	
No. 5 Engine Company	11,702 88	
No. 6 Engine Company	12,297 67	
No. 7 Engine Company	12,318 75	
No. 8 Engine Company	11,708 87	
No. 9 Engine Company	12,322 77	
No. 10 Engine Company	11,707 41	
No. 11 Engine Company	12,317 38	
No. 12 Engine Company	11,670 43	
No. 13 Engine Company	12,289 64	
No. 14 Engine Company	11,711 69	
No. 15 Engine Company	22,927 36	
No. 16 Engine Company	12,233 31	
No. 17 Engine Company	11,718 67	
No. 18 Engine Company	11,961 86	
No. 19 Engine Company	12,320 99	
No. 20 Engine Company	12,289 56	
No. 21 Engine Company	11,716 80	
No. 22 Engine Company	11,675 08	
No. 23 Engine Company	13,366 35	
No. 24 Engine Company	11,721 32	
No. 25 Engine Company	11,722 16	
No. 26 Engine Company	11,706 26	
No. 27 Engine Company	12,286 44	
No. 28 Engine Company	11,716 05	
No. 29 Engine Company	11,510 97	
No. 30 Engine Company	11,704 91	
No. 31 Engine Company	11,722 62	
No. 32 Engine Company	11,718 15	
No. 33 Engine Company	11,716 13	
No. 34 Engine Company	11,681 15	
No. 35 Engine Company	11,549 85	
No. 36 Engine Company	11,480 44	
No. 37 Engine Company	11,708 57	
No. 38 Engine Company	11,715 58	
No. 39 Engine Company	18,849 09	
No. 1 Truck Company	12,066 69	
No. 2 Truck Company	12,055 44	
No. 3 Truck Company	11,467 46	
No. 4 Truck Company	11,462 69	
No. 5 Truck Company	11,473 56	
No. 6 Truck Company	12,055 85	
No. 7 Truck Company	7,406 85	
No. 8 Truck Company	7,415 89	
No. 9 Truck Company	7,423 68	
No. 10 Truck Company	12,407 79	
No. 11 Truck Company	12,067 09	
No. 12 Truck Company	7,419 41	
No. 13 Truck Company	11,460 00	
No. 14 Truck Company	7,425 00	
No. 15 Truck Company	11,466 64	
Amount scarried forward	$664,922 82	$723,360 00

Amounts brought forward	$664,922 82	$723,360 00
No. 16 Truck Company	11,462 35	
No. 17 Truck Company	11,467 20	
No. 1 Water Tower	3,814 06	
No. 2 Water Tower	3,824 81	
Pumping Station	7,711 20	
Fire Alarm Telegraph Department	16,102 92	
Total expenditures		720,305 36
Surplus of credit		$3,054 64
Balance to surplus, 1911		3,054 64
Appropriation, expenses		$185,305 84

EXPENDITURES.

Apparatus	$11,039 18	
Apparatus repairs	13,987 41	
Accident	5,797 70	
Feed	37,293 42	
Fuel	17,842 19	
Furniture	2,232 81	
Harness	933 25	
Horseshoeing	8,439 00	
Hose	4,397 33	
Horses	5,747 50	
Electricity and gas	3,665 63	
Insurance	3,636 00	
Washing	6,673 50	
Sick	7,270 70	
Pensioners, regular	17,680 91	
Fire Alarm Telegraph Department	6,897 88	
Cable for subways	1,979 75	
Fire alarm boxes	660 00	
Office expenses	1,636 66	
Miscellaneous	16,688 77	
Storeroom	10,806 25	
Total expenditures		185,305 84

HIGH PRESSURE SERVICE HOSE COMPANIES NOS. 1 AND 2
A—VI (20).

Appropriation, salaries		$10,975 00

EXPENDITURES.

(None)

Carried to surplus, 1911		10,975 00
Appropriation, equipment		$20,000 00

EXPENDITURES.

J. Ferd. Hahn	$15 50	
Jno. Turnbull, Jr., Co	94 30	
Schuster Co.	88 00	
International Bedding Co	132 00	
Amounts carried forward	$329 80	$20,000 00

Amounts brought forward	$329 80	$20,000 00
F. Arnold & Son	252 00	
John E. Hurst Co	8 00	
Jno. A. Horner Co	104 50	
Daniel Miller Co	30 12	
O'Neill Co.	25 06	
Boston Hose and Rubber Co	5,453 33	
Eureka Fire Hose Co	1,234 67	
Mack Bros. Motor Co	7,500 00	
Total expenditures		14,937 48
Surplus of credit		$5,062 52
Balance carried forward to 1912		5,062 52

HOSE COMPANY NO. 12 A—VI (20).

Appropriation, salaries	$10,075 00

EXPENDITURES.

Paid salaries	8,554 83
Surplus of credit	$1,520 17
Balance to surplus, 1911	1,520 17
Appropriation, equipment	$8,300 00

EXPENDITURES.

J. H. Ferd. Hahn	$7 25	
John Turnbull, Jr., Co	47 00	
Schuster Co	44 00	
International Bedding Co	66 00	
F. Arnold & Son	126 00	
John E. Hurst Co	8 00	
John A. Horner Co	100 00	
Daniel Miller Co	28 00	
O'Neill Co	20 00	
Eureka Fire Hose Co	528 00	
Total expenditures		974 25
Surplus of credit		$7,325 75
Balance carried forward to 1912		7,325 75

PIPE LINE SYSTEM A—VI (20).

Appropriation	$150,000 00
Brought forward from 1910	76,751 05
Total credits	$226,751 05

EXPENDITURES.

Pittsburgh Valve and Foundry Co.:		
Contract	$18,412 47	
Force account	53,818 54	
D. P. Banks, Consulting Engineer	12,866 49	
City Engineer's Department	2,766 21	
Amounts carried forward	$87,863 71	$226,751 05

Amounts brought forward	$87,863 71		$226,751 05
Edge Moor Iron Co.	760 77		
Safety Insulated Wire Co.	4,161 00		
Advertising, newspapers	63 37		
		$92,848 85	
Pumping Station:			
Benjamin F. Bennett Construction Co.	$99,870 08		
P. Flanigan & Son	292 13		
		100,162 21	
Total expenditures			193,011 06
Surplus of credit			$33,739 99
Balance carried forward to 1912			33,739 99

FIREMEN'S WIDOWS A—VI (20).

Appropriation		$2,025 00
EXPENDITURES.		
Wilhelmina Franke	$250 00	
Mary Gill	475 00	
Laura V. Gesswein	450 00	
Adeline Acomb	400 00	
Kate Meningue	450 00	
Total expenditures		2,025 00

PENSION, AGNES LINDSAY A—VI (20).

Appropriation	$450 00
EXPENDITURES.	
Paid Agnes Lindsay	450 00

PENSION, CHRISTINA PUGH A—VI (20).

Appropriation	$900 00
EXPENDITURES.	
Paid Christina Pugh	900 00

PENSION, MARY A. McGRAW A—VI (20).

Appropriation	$400 00
EXPENDITURES.	
Paid Mary A. McGraw	400 00

PENSION, CATHERINE FRIEMAN A—VI (20).

Appropriation	$450 00
EXPENDITURES.	
Paid Catherine Frieman	450 00

PENSION JOANNA BRADEN A—VI (20).

Appropriation	$400 00
EXPENDITURES.	
Paid Joanna Braden	400 00

PENSION LOTTIE E. CURRY A—VI (20).

Appropriation	$300 00
EXPENDITURES.	
Paid Lottie E. Curry	300 00

PENSION, EVA WAGNER A—VI (20).

Appropriation	$400 00
EXPENDITURES.	
Paid Eva Wagner	400 00
Total	$5,325 00

REVENUE A—VI (20).

Salary account	$59 41
Hose	315 03
Manure	150 00
Horses	932 50
Metals	582 48
Pole lines	174 04
Damage to fire alarm boxes	65 00
Installation of fire alarm boxes	256 38
Fire alarm service	213 11
Insurance	180 73
Furniture	19 85
Harness	4 50
Miscellaneous	44 80
Total revenue	$2,997 83
Paid into City Treasury	2,997 83

LOT AND BUILDING ENGINE COMPANY No. 38 A—VI (20).

Appropriation		$2,931 93
EXPENDITURES.		
Water Department	$22 83	
City Engineer	35 16	
Walther & Co., plumbing	98 92	
R. B. Mason, builder	2,601 68	
Total expenditures		2,758 59
Surplus of credit		$173 34
Balance carried forward to 1912		173 34

LOT AND BUILDING ENGINE COMPANY No. 36 A—VI (20).

Appropriation		$1,894 42
Amount brought forward from 1910		2,208 58
Total credits		$4,103 00
EXPENDITURES.		
Water Department	$34 42	
G. W. Walther & Co., plumbing	61 20	
Ellicott & Emmart, commission	490 87	
Fidelity Construction Co., builders	3,516 51	
Total expenditures		4,103 00

ENGINE COMPANY No. 38, EQUIPMENT A—VI (20).

Amount brought forward from 1910		$10,390 00
EXPENDITURES.		
American La France Fire Engine Co	$3,590 00	
The Ahern-Fox Fire Engine Co	6,800 00	
Total expenditures		10,390 00

ENGINE HOUSE No. 41 A—VI (20).

Amount brought forward from 1910		$29,710 00
EXPENDITURES.		
Lindsay & Bernard, appraisement	$100 00	
Augusta Benesch	1,259 51	
Emil Budnitz	281 63	
Gottlieb, Bauernschmidt & Straus	570 50	
Jennie M. Conklin, etc	1,226 80	
John Gill, Jr	1,126 80	
John Gill, Jr., trustee	719 60	
Phillip Mundlein and wife	1,228 16	
W. O. Atwood, surveyor	33 00	
George Carey Lindsay, court clerk	87 05	
Collector of Taxes	211 54	
Collector of Water Rents	13 26	
Recording deeds	24 65	
John D. Calwell, examining title	25 00	
Total expenditures		6,907 50
Surplus of credit		$22,802 50
Balance carried forward to 1912		22,802 50

ENGINE HOUSE No. 35 A—VI (20).

Amount brought forward from 1910		$30,000 00
EXPENDITURES.		
George S. B. Pitman	$7,470 61	
Recording deed	4 25	
W. O. Atwood, surveyor	25 00	
Collector of Taxes	106 79	
James D. Calwell, examining title	100 00	
Total expenditures		7,706 65
Surplus of credit		$22,293 35
Balance carried forward to 1912		22,293 35

NEW STEEL FIREBOAT (ENGINE COMPANY No. 39) A—VI (20).

Appropriation		$15,500 00
Amount brought forward from 1910		20,391 65
Total credits		$35,891 65
EXPENDITURES.		
Skinner Ship Building and Dry Dock Co	$35,016 24	
W. J. Babcock, constructing engineer	875 41	
Total expenditures		35,891 65

LOT AND BUILDING ENGINE COMPANY No. 41 A—VI (20).

Amount brought forward from 1910		$29,710 00
EXPENDITURES.		
Augusta Benesch	$1,259 51	
Emil Budnitz, attorney	281 63	
Gottlieb, Bauernschmidt & Straus Brewing Co	570 50	
Jennie M. Conklin and Edward C. Conklin	1,226 80	
John Gill, Jr	1,126 80	
John Gill, Jr., trustee	719 66	
Philip Muendlein and Elizabeth Muendlein	1,228 16	
Baltimore City Court	87 05	
Surveyor	33 00	
Examining title	125 00	
City taxes	211 54	
Recording deeds	24 65	
Water rents	13 26	
Total expenditures		6,907 50
Surplus of credit		$22,802 50
Balance carried forward to 1912		22,802 50

LOT AND BUILDING ENGINE HOUSE No. 35 A—VI (20).

Amount brought forward from 1910		$30,000 00
EXPENDITURES.		
George S. B. Pitman	$7,470 61	
Examining titles	100 00	
City taxes	106 79	
City Surveyor	25 00	
Recording deeds	4 25	
Total expenditures		7,706 65
Surplus of credit		$22,293 35
Balance carried forward to 1912		22,293 35

COURT BAILIFFS, STENOGRAPHERS, ETC. A—VI (21).

Appropriation, salaries		$65,304 16
Salary returned, Clapham Murray, Jr		62 50
Total credits		$65,366 66

SALARIES, DECEMBER 1, 1910, TO DECEMBER 15, 1911.

EXPENDITURES.		
Bailiff, Edward M. Staylor	$1,562 50	
Bailiff, Thomas M. Kent	1,562 50	
Bailiff, Richard Penn	858 33	
Bailiff, Charles Eggleston	1,562 50	
Bailiff, Joseph E. Quinn	1,562 50	
Bailiff, John T. Barber	1,562 50	
Bailiff, Stephen M. Crane	1,562 50	
Bailiff, George J. Kaufman	1,562 50	
Bailiff, Francis A. Elphring	1,562 50	
Amounts carried forward	$13,358 33	$65,366 66

Amounts brought forward	$13,358 33	$65,366 66
Bailiff, Charles E. Grogan	1,562 50	
Bailiff, George W. Golden	1,562 50	
Bailiff, William S. Norris	1,562 50	
Bailiff, Herman Schapiro	1,562 50	
Bailiff, Levi Abrahams	1,562 50	
Bailiff, Clapham Murray, Jr	1,437 50	
Bailiff, Oscar E. Cruse	1,562 50	
Bailiff, Noble Pennington	1,562 50	
Bailiff, Charles F. Pease	1,562 50	
Bailiff, George B. Ely	1,562 50	
Bailiff, John A. White	1,562 50	
Bailiff, William M. Conway	1,562 50	
Bailiff, David W. Dempsey	1,562 50	
Bailiff, James M. Glenn	1,562 50	
Bailiff, Harry L. Streib	1,562 50	
Bailiff, Meyer Bornheim	1,562 50	
Bailiff, Thomas J. Noonan	1,562 50	
Bailiff, George W. Davis	1,500 00	
Stenographer, Lafayette P. Temple	1,875 00	
Stenographer, John C. Davis	1,875 00	
Stenographer, Charles S. Chesner, Jr	1,875 00	
Stenographer, John J. Lenney	1,875 00	
Stenographer, Jack Solomon	1,646 80	
Stenographer, Theodore A. Poole	1,480 42	
Stenographer, Grayson W. Sharretts	300 00	
Stenographer, Theodore A. Retaliata	1,870 00	
Stenographer, Walter J. King	1,530 00	
Watchman, Simon V. Cullen	1,041 74	
Watchman, Samuel W. Taylor	937 50	
Watchman, Frederick Bayline	937 50	
Total expenditures		58,539 79
Surplus of credit		$6,826 87
Balance to surplus, 1911		6,826 87

CRIMINAL COURT EXPENSES A—VI (21).

Appropriation		$85,462 50
Transferred from Contingent Fund		6,727 86
Error in charge, sheriff, charged to Baltimore City Court		379 60
Total credits		$92,569 96

EXPENDITURES.

State's Attorney	$24,510 00	
Clerks' fees	22,426 60	
Sheriff's fees	20,592 44	
Grand jurors	6,969 00	
Petty jurors	12,236 23	
Stenographers, etc	2,676 29	
Attorneys for prisoners	755 00	
Amounts carried forward	$90,165 56	$92,569 96

Amounts brought forward	$90,165 56	$92,569 96
Experts	399 70	
Interpreters	64 50	
Witnesses in jail and railroad fares	843 00	
Hotel for jurors, etc	472 50	
Printing, stationery, etc	216 50	
House of Good Shepherd, board	28 60	
Total expenditures		92,190 36
Surplus of credit		$379 60
Balance to surplus, 1911		379 60

BALTIMORE CITY COURT A—VI (21).

Appropriation		$12,571 25
EXPENDITURES.		
Clerks' fees, stationery, etc	$1,355 26	
Sheriff's fees	379 60	
Habeas corpus cases	532 00	
City Directories (3)	21 00	
Juries, Courts Nos. 1 and 2	8,302 55	
Total expenditures		10,620 41
Surplus of credit		$1,950 84
Balance to surplus, 1911		1,950 84

COURT OF COMMON PLEAS A—VI (21).

Appropriation, expenses		$9,893 70
EXPENDITURES.		
Clerks' fees	$1,172 30	
Sheriff's fees	226 80	
Jurors	4,942 00	
Stationery and printing	77 00	
Habeas corpus	155 90	
Interpreters	10 00	
Directory	7 00	
Postage	16 00	
Total expenditures		6,607 00
Surplus of credit		$3,286 70
Balance to surplus, 1911		3,286 70

SUPERIOR COURT A—VI (21).

Appropriation, expenses		$14,662 65
EXPENDITURES.		
Clerks' fees	$1,731 65	
Sheriff's fees and expenses	1,166 95	
Jurors	6,645 60	
Total expenditures		9,544 20
Surplus of credit		$5,118 45
Balance to surplus, 1911		5,118 45

CIRCUIT COURT A—VI (21).

Appropriation, expenses		$500 00
EXPENDITURES.		
Process to counties and keeping court minutes...	$170 00	
Stationery, printing, etc	62 75	
Total expenditures		232 75
Surplus of credit		$267 25
Balance to surplus, 1911		267 25

CIRCUIT COURT No. 2 A—VI (21).

Appropriation, expenses		$500 00
Transferred from Contingent Fund		267 50
Total credits		$767 50
EXPENDITURES.		
Process to counties and keeping court minutes....	$170 00	
Stationery, printing, etc	325 45	
Total expenditures		495 45
Surplus of credit		$272 05
Balance to surplus, 1911		272 05

ORPHANS' COURT A—VI (21).

Appropriation, salaries		$10,016 00
EXPENDITURES.		
Judge, Myer J. Block	$2,817 00	
Judge, William M. Dunn	2,817 00	
Judge, Harry C. Gaither	2,817 00	
Bailiff, Joseph R. Knight	1,565 00	
Total expenditures		10,016 00

ORPHANS' COURT A—VI (21).

Appropriation, expenses		$100 00
EXPENDITURES.		
Stationery, printing, etc	$50 50	
Postage	20 00	
Total expenditures		70 50
Surplus of credit		$29 50
Balance to surplus, 1911		29 50

JUVENILE COURT A—VI (21).

Appropriation, salaries		$11,500 00
EXPENDITURES.		
Salaries to December 1, 1911:		
Judge, T. J. C. Williams	$3,000 00	
Judge, Morrill N. Packard	999 96	
Probation Officer, J. Morris Diven	1,200 00	
Probation Officer, William J. Mueller	1,200 00	
Amounts carried forward	$6,399 96	$11,500 00

Amounts brought forward	$6,399 96	$11,500 00
Probation Officer, James W. Harry	1,200 00	
Probation Officer, Loraine Reinhard	1,200 00	
Probation Officer, Mary Cathcart	1,200 00	
Clerk, A. Victoria Whittington	999 96	
Stenographer, Margaret McDonnell	458 26	
Total expenditures		11,458 18
Surplus of credit		$41 82
Balance to surplus, 1911		41 82

JUVENILE COURT A—VI (21).

Appropriation, expenses		$1,000 00
EXPENDITURES.		
Chesapeake and Potomac Telephone Co	$269 45	
Stationery, printing, etc	156 99	
Stamps, postage, etc	109 94	
Typewriter supplies	11 80	
Chattolanee water	14 50	
St. Mary's Industrial School	37 00	
Car tickets	170 00	
Directory	7 00	
Stenographer	4 50	
Towels, etc	3 50	
Expenses, James W. Harry and J. Morris Diven to Brooklyn, Boston, etc. (Juvenile Courts)	116 55	
Expenses, James W. Harry to Boston, etc. (conference)	67 40	
Expenses, Loraine Reinhard to Boston (conference)	24 20	
Traveling expenses	5 47	
Car fare	1 70	
Total expenditures		1,000 00

SUPREME BENCH A—VI (21).

Appropriation, salaries		$5,500 00
EXPENDITURES.		
Judge, H. Arthur Stump	$500 00	
Judge, James P. Gorter	500 00	
Judge, Thomas Ireland Elliott	500 00	
Judge, J. Upshur Dennis	500 00	
Judge, Henry Stockbridge	267 85	
Judge, Henry Duffy	500 00	
Judge, Alfred S. Niles	500 00	
Judge, Henry D. Harlan	500 00	
Judge, John J. Dobler	500 00	
Judge, Charles W. Heuisler	500 00	
Judge, George M. Sharp	250 00	
Judge, Carroll T. Bond	225 00	
Judge, Walter I. Dawkins	39 40	
J. Maulsby Smith, executor Judge George M. Sharp, deceased	134 38	
Total expenditures		5,416 63
Surplus of credit		$83 37
Balance to surplus, 1911		83 37

SUPREME BENCH A—VI (21).

Appropriation, expenses		$3,130 00
EXPENDITURES.		
Collector Frank Brown	$25 00	
Murphy, McCawley, stationery, printing, jury lists, etc.	390 26	
Stamps, postage, etc	300 74	
J. W. F. Dorman Co., numbering machine	12 00	
Library Bureau, sectional case, etc	174 35	
Directories	14 00	
Katie Goldstein, stenographer	475 00	
Typewriters, supplies, etc	152 50	
Total expenditures		1,544 85
Surplus of credit		$1,585 15
Balance to surplus, 1911		1,585 15

SUPREME BENCH, TRUST DEPARTMENT A—VI (21).

Appropriation		$200 00
EXPENDITURES.		
Lucas Brothers, stationery, etc		125 45
Surplus of credit		$74 55
Balance to surplus, 1911		74 55

MAGISTRATES A—VI (21).

Appropriation		$19,900 00
EXPENDITURES.		
Salaries to December 1, 1911:		
Police Magistrate, James T. O'Neill	$2,100 00	
Police Magistrate, William J. Llewellyn	2,100 00	
Police Magistrate, J. McKenny White	2,068 37	
Police Magistrate, Eugene E. Grannan	2,100 00	
Police Magistrate, Daniel J. Loden	2,100 00	
Police Magistrate, Alva H. Tyson	1,772 22	
Police Magistrate, James W. Lewis	2,068 37	
Police Magistrate, Edward S. Stanley	1,050 00	
Police Magistrate, Robert W. Beach	1,050 00	
Police Magistrate, Robert H. Carr	768 62	
Police Magistrate, Paul Johannsen	1,050 00	
Substitute magistrates owing to sickness, vacation or absence of the regular magistrates	1,415 97	
Total expenditures		19,643 55
Surplus of credit		$256 45
Balance to surplus, 1911		256 45

FINES A—VI (21).

By Central Station Police Magistrates	$464 00
By Western Station Police Magistrates	152 00
By Northwestern Station Police Magistrates	306 00
By Southern Station Police Magistrates	100 00
Amount carried forward	$1,022 00

Amount brought forward		$1,022 00
By Southwestern Station Police Magistrates		277 00
By Eastern Station Police Magistrates		205 00
By Northern Station Police Magistrates		138 00
By Northeastern Station Police Magistrates		275 00
By at-large magistrates		103 00
By sheriff		2,641 30
By Juvenile Court		63 00
To amount remitted by Mayor	$140 00	
To net revenue paid into City Terasury	4,584 30	
	$4,724 30	$4,724 30

REMOVED CASES A—VI (21).

Removed from—		
Baltimore County, Thistle Mills vs. Patapsco Electric Co.		$512 10
Baltimore County, Harry A. Gunther, infant, vs. J. L. Truax		358 47
Baltimore County, George F. Mayer vs. William Bitzer		153 63
Baltimore County, Thomas H. King vs. E. K. Lewis		153 63
Baltimore County, Samuel G. Duke vs. Monumental Brewing Co.		51 21
Baltimore County, Martha E. McGinnis vs. John W. Sipes		51 21
Baltimore County, Arthur W. Rogers vs. Mary E. Frederick, administratrix of Thomas W. Dodson et al		153 63
Baltimore County, Anheuser-Busch Brewing Co. vs. August Fenneman		51 21
Baltimore County, Edward L. Ward vs. Elizabeth Leverton and Mary L. Leverton		102 42
Baltimore County, John Manns vs. Henry N. Diehl		51 21
Carroll County, Stuart & Stuart vs. The Atlantic Machine Co.		51 21
Total receipts		$1,689 93

DISBURSEMENTS.

State of Maryland vs. Clayton E. Poole	$1,621 17	
State of Maryland vs. Clayton E. Poole	319 20	
Total disbursements		1,940 37
Surplus of debit		$250 44
Transferred to Mayor and City Council		250 44

SPECIAL MEDICAL EXAMINATIONS A—VI (21).

Appropriation		$500 00

EXPENDITURES.

Dr. Sydenham R. Clark	$115 00	
Dr. Anne I. Abercrombie	110 00	
Dr. Mary F. Vogelein	110 00	
Dr. Arthur C. Barrett	90 00	
Total expenditures		425 00
Surplus of credit		$75 00
Balance to surplus, 1911		75 00

BAR LIBRARY ASSOCIATION A—VI (21).

Appropriation	$2,500 00
EXPENDITURES.	
Bar Library Association	2,500 00

REGISTRATION APPEALS A—VI (21).

Transferred from Contingent Fund	$74 75
EXPENDITURES.	
Miscellaneous	74 75

HEALTH DEPARTMENT A—VI (22).

Appropriation, salaries		$112,560 84
Wages returned		10 00
Total credits		$112,570 84
EXPENDITURES.		
Commissioner of Health, James Bosley, M. D., 12½ months	$3,645 84	
Assistant Commissioner of Health, C. Hampson Jones, M. D., 12½ months	3,125 00	
Health Warden, Oscar L. Long, M. D., 12½ months	937 50	
Health Warden, H. E. Laroque, M. D., 10½ months	787 50	
Health Warden, John Roth, M. D., 2 months	150 00	
Health Warden, Augustine Palmisano, M. D., 12½ months	937 50	
Health Warden, H. K. Gorsuch, M. D., 12½ months	937 50	
Health Warden, J. E. Heard, M. D., 12½ months	937 50	
Health Warden, J. T. Spicknall, M. D., 12½ months	937 50	
Health Warden, A. L. Rettaliata, M. D., 11½ months	862 50	
Health Warden, Wm. J. Schmitz, M. D., 7 days	16 94	
Health Warden, J. W. France, M. D., 12½ months	937 50	
Health Warden, C. T. Buckner, M. D., 12½ months	937 50	
Health Warden, E. H. Hayward, M. D., 12½ months	937 50	
Health Warden, N. E. B. Iglehart, M. D., 7 months	525 00	
Health Warden, C. E. Downes, M. D., 5½ months	412 50	
Health Warden, E. A. Munoz, M. D., 12½ months	937 50	
Health Warden, V. F. Kelly, M. D., 12½ months	937 50	
Health Warden, Wm. Caspari, M. D., 12½ months	937 50	
Health Warden, W. DeF. Olmstead, M. D., 12½ months	937 50	
Health Warden, George B. Scholl, M. D., 8½ months	637 50	
Health Warden, G. A. Thiede, M. D., 4 months	300 00	
Health Warden, G. W. Hemmeter, M. D., 12½ months	937 50	
Health Warden, R. A. Warner, M. D., 12½ months	937 50	
Health Warden, M. G. Smith, M. D., 12½ months	937 50	
Health Warden, H. J. Hahn, M. D., 12½ months	937 50	
Health Warden, Alexander E. Muse, M. D., 12½ months	937 50	
Health Warden, J. E. Poulton, M. D., 12½ months	937 50	
Health Warden, C. P. Erken-Brack, M. D., 12½ months	937 50	
Amounts carried forward	$28,275 28	$112,570 84

Amounts brought forward	$28,275 28	$112,570 84
Health Warden, L. J. Turlington, M. D., 12½ months	937 50	
Secretary, M. Harry Laib	1,643 75	
Clerk to Bureau of Vital Statistics, Charles W. Busick	1,187 50	
Statistician, Arthur D. Thompson	1,080 00	
Permit Clerk, Harry C. Andrews	1,000 00	
Permit Clerk, Robert R. Krauter, 11½ months	958 34	
Commissioner's Clerk, Victor Dennis, 11½ months	862 50	
Registrar's Clerk, George C. Wedderburn	900 00	
Complaint Clerk, Howard A. Moore	900 00	
Index Clerk, James J. O'Meara	900 00	
Medical Examiner, N. G. Kierle, M. D.	1,500 00	
Assistant Medical Examiner, Henry G. Branham, M. D.	500 00	
Throat Inspector, W. P. Stubbs, M. D.	500 00	
Throat Inspector, B. P. Herzog, M. D.	500 00	
Bacteriologist, Wm. Royal Stokes, M. D.	1,500 00	
Assistant Bacteriologist, F. W. Hachtel, M. D.	1,200 00	
Assistant Bacteriologist, Wm. J. Schmitz, M. D.	1,000 00	
Laboratory Clerk, John A. Campbell, 6½ months, 7 days	504 37	
Laboratory Clerk, Harry J. Campbell, 5 months	375 00	
Collector for Laboratory, Edward F. Kelly	900 00	
Laboratory Assistant, G. Harry Rush	895 83	
Laboratory Assistant, Wm. A. Gunther, 6 months	120 00	
Laboratory Assistant, Vernon Clages, 6 months	120 00	
Laboratory Assistant, George Considine	240 00	
Laboratory Assistant, Charles McLaughlin, 8½ months	170 00	
Laboratory Assistant, Harry Maloney, 3 months	60 00	
Chemist, Fred C. Blanck, 11½ months	1,437 50	
Chemist, William E. Hoffman, Jr., ½ month	62 50	
Assistant Chemist, C. Clifton Howes	1,200 00	
Assistant Chemist, Charles O. Bowman, 5 months	295 00	
Assistant Chemist, Raymond Freas, 7 months	420 00	
Laboratory Assistant, Wm. McGinniss, 7 months	205 00	
Laboratory Assistant, L. J. Houghton, Jr., 2 months,	60 00	
Laboratory Assistant, Chas. McLaughlin, 3 months	90 00	
Chemical Laboratory Clerk, Michael Gahan, 9 months	675 00	
Chemical Laboratory, Clerk, Walter Wright, ½ month	37 50	
Chemical Laboratory, Clerk, Harry J. Ward, 2 months	150 00	
Chief Food Inspector, Wm. P. Palmer, 11½ months	1,150 00	
Food Inspector, Charles Knell	900 00	
Food Inspector, Philip T. Meagher	900 00	
Food Inspector, William B. Roth	900 00	
Food Inspector, George J. Fischer	900 00	
Food Inspector, Rudolph Bolard, 11½ months	862 50	
Food Inspector, August H. Ritmiller, ½ month	37 50	
Food Inspector, Joseph Sapp	900 00	
Food Inspector, James E. Hood	900 00	
Food Inspector, George H. Lentz	900 00	
Amounts carried forward	$61,712 57	$112,570 84

Amounts brought forward	$61,712 57	$112,570 84
Food Inspector, Michael J. Buckley	900 00	
Food Inspector, John Behr	900 00	
Food Inspector, George A. Brady	900 00	
Inspector of Bakeries, Rudolph Weber	900 00	
Inspector of Cow Stables, George F. Schultz	900 00	
Stenographer, Catherine Kilfoyle	720 00	
Telephone Operator, Ola Tracey	475 00	
Chief Tenement House Inspector, Wm. H. Davenport, 11½ months	1,150 00	
Tenement House Inspector, C. E. Downes, M. D., 6½ months	487 50	
Tenement House Inspector, John A. Kelly, 5½ months	412 50	
Tenement House Inspector, Abraham Lasch	900 00	
Inspector of Plumbing, Charles I. Putts, Jr	1,487 50	
Assistant Inspector of Plumbing, John Ward	900 00	
Assistant Inspector of Plumbing, John J. Gessler	900 00	
Assistant Inspector of Plumbing, Albert Share	900 00	
Assistant Inspector of Plumbing, Henry H. Smith	900 00	
Assistant Inspector of Plumbing, Robert A. Reed	900 00	
Assistant Inspector of Plumbing, Wm. E. Dorsey	900 00	
Assistant Inspector of Plumbing, Michael J. Gorman	900 00	
Assistant Inspector of Plumbing, Henry Kohlerman, 11½ months	862 50	
Assistant Inspector of Plumbing, Wm. C. Frosburg, 11½ months	862 50	
Drain Inspector, Francis A. Ebberts	900 00	
Clerk to Plumbing Division, Frank B. Wood	900 00	
Nuisance Clerk, Edward Thompson, 11½ months	862 50	
Fumigation Clerk, William E. Woodall	1,191 66	
Superintendent of Morgue, P. R. Glynn, 9 days	21 78	
Superintendent of Morgue, Aug. H. Ritmiller, 11½ months	1,150 00	
Fumigator, George W. Phillips	800 00	
Fumigator, Joseph Fitzsimmons	800 00	
Fumigator, William W. Stanton	800 00	
Fumigator, Meyer Raitzyk	800 00	
Fumigator, Rudolph Bolard, ½ month	33 33	
Fumigator, H. G. Seidell, 11½ months	766 67	
Driver, Thomas Freeze, 11 months	660 00	
Driver, Otis K. Pease, ½ month	30 00	
Driver, James L. Fitzpatrick, ½ month	30 00	
Driver, William C. Conner, 11 months	660 00	
Driver, Wm. M. Bucheimer, 25 days	50 00	
Driver, Thomas Daly	720 00	
Medical Examiner of Schools, H. Warren Buckler, M. D.	600 00	
Medical Examiner of Schools, I. R. Page, M. D.	600 00	
Medical Examiner of Schools, J. Howard Iglehart, M. D.	600 00	
Medical Examiner of Schools, G. A. Thiede, M. D., 8 months	400 00	
Medical Examiner of Schools, A. K. Bond, M. D., 3½ months	175 00	
Medical Examiner of Schools, R. A. Urquhart, M. D.	600 00	
Amounts carried forward	$94,021 01	$112,570 84

Amounts brought forward	$94,021 01	$112,570 84
School Nurse, Virginia B. Lorentz	600 00	
School Nurse, Marie A. Gorter	600 00	
School Nurse, Sally L. Jean	600 00	
School Nurse, Henrietta E. Knorr	600 00	
School Nurse, Agnes P. Kloman	600 00	
Statistical Clerk, Lucy I. Cowell	600 00	
Nurse in Charge Tuberculosis Division, Ellen N. Lamotte, 8 months	795 83	
Nurse in Charge Tuberculosis Division, Elizabeth C. Lee, 4 months	400 00	
Tuberculosis Nurse, Rebecca M. Coale	900 00	
Tuberculosis Nurse, Julia G. Reid, 1 month	75 00	
Tuberculosis Nurse, Mary L. Kelly, 10 months, 29 days	822 50	
Tuberculosis Nurse, Lilian Oeligrath, 11½ months, 4 days	872 18	
Tuberculosis Nurse, Jennie B. Newman	900 00	
Tuberculosis Nurse, Margaret Kennedy	900 00	
Tuberculosis Nurse, K. M. Nash, 11 months, 27 days	891 37	
Tuberculosis Nurse, Annie L. Murphy, 5 months, 28 days	445 00	
Tuberculosis Nurse, Nancy M. MacNabb, 2½ months	187 50	
Tuberculosis Nurse, Ida L. Lilly	900 00	
Tuberculosis Nurse, Hattie B. Clements, 5 months	375 00	
Tuberculosis Nurse, Cecelia Sweitzer, 5 months	375 00	
Tuberculosis Nurse, Marion I. Luby, 2 months	150 00	
Tuberculosis Nurse, Elizabeth C. Lee, 8 months	600 00	
Tuberculosis Nurse, Annie D. Winters, 2½ months	187 50	
Tuberculosis Nurse, L. M. Schroeder, 5 months	375 00	
Tuberculosis Nurse, Lillian Harmison, 4½ months	337 50	
Tuberculosis Nurse, Lena B. Price, 7 months, 13 days	556 33	
Tuberculosis Nurse, Ellen M. Hellier	900 00	
Tuberculosis Nurse, Rosalie C. Levelle	900 00	
Tuberculosis Nurse, Helen M. Bacon	900 00	
Playground Nurse, Sally L. Jean, 2 months, 1910	150 00	
Playground Nurse, Mary T. Smith, 2 months, 1910	150 00	
Playground Nurse, Sally L. Jean, 2 months, 1911	150 00	
Playground Nurse, Henrietta E. Knorr, 2 months, 1911	150 00	
Commissioner of Health, James Bosley, M. D	170 00	
Total expenditures		$112,136 72
Surplus of credit		$434 12
Balance to surplus, 1911		434 12
Appropriation, expenses		$29,550 00

EXPENDITURES.

Fumigation, formaline, etc	$4,177 00	
Transportation, car fare, etc	3,150 00	
Advertising	40 13	
Subscriptions to journals	204 97	
Amounts carried forward	$7,572 10	$29,550 00

Amounts brought forward	$7,572 10	$29,550 00
Sundry bills	2,007 44	
Diphtheria antitoxin	2,010 01	
Annual report, printing, etc	675 95	
Morgue, incinerating and disinfecting plants	1,416 47	
Bacteriological laboratory	3,304 07	
Chemical laboratory	1,251 30	
Disinfectants	809 70	
Vaccine virus	876 51	
Care and prevention of infectious diseases	106 14	
Postage, etc.	2,320 00	
Livery, hiring, etc	4,713 23	
Medical inspection of public schools	42 21	
Coffins for poor	252 00	
Digging graves for pauper dead	84 50	
Nurses division	275 04	
Total expenditures		27,716 67
Surplus of credit		$1,833 33
Balance to surplus, 1911		1,833 33

QUARANTINE STATION A—VI (22).

Appropriation, salaries	$14,485 00
Wages returned	5 00
Total credits	$14,490 00

EXPENDITURES.

Assistant Health Commissioner, Thos. L. Richardson, M. D.	$3,000 00	
Assistant Resident Physician, T. W. Clark, M. D., 6 months, 5 days	940 00	
Assistant Resident Physician, A. D. Driscoll, 5½ months, 4 days	860 00	
Captain of Tugboat No. 1, James C. Evans	840 00	
Captain of Tugboat No. 2, William T. Green	780 00	
Engineer of Tugboat No. 1, John Kellner	840 00	
Engineer of Tugboat No. 2, Bernard E. Eckert	780 00	
Fireman of Tugboat No. 1, John L. Smith	660 00	
Fireman of Tugboat No. 2 George W. Bevans, ½ month	27 50	
Fireman of Tugboat No. 2, Wm. J. Shadrick, 1 month	55 00	
Fireman of Tugboat No. 2, Thomas L. Barrett, 8 days	15 71	
Fireman of Tugboat No. 2, Patrick McCauley, 10 months, 5 days	559 82	
Deckhand of Tugboat, Bernard McMahon	660 00	
Deckhand of Tugboat, George W. Bevans, 11½ months	632 50	
Messenger, George M. Streeper	660 00	
Gardner, John L. Matthu	660 00	
Nurse, M. T. Armacost	660 00	
Cook, Henrietta Blackwell	300 00	
Laundress, Alishia Brown, 3½ months	70 00	
Amounts carried forward	$13,000 53	$14,490 00

Amounts brought forward	$13,000 53	$14,490 00
Laundress, Josephine Brooks, 1 month	20 00	
Laundres, Annie Conner, 1 month, 7 days	24 52	
Laundress, Hattie Gasway, 1½ months, 4 days	32 58	
Laundress, Fannie Toomey, 1 month, 18 days	31 61	
Laundress, Sarah Cook, 2½ months	50 00	
Extra Nurse, Laura Dobson	157 00	
Extra Nurse, Ellen Brown	48 00	
Extra Nurse, Annie Conner	34 84	
Leper Nurse, Annie M. Palmer, 7 months, 7 days	578 49	
Total expenditures		13,977 57
Surplus of credit		$512 43
Balance to surplus		512 43
Appropriation, expenses		$8,550 00
Received from Baltimore Co., Md., for small-pox case		35 87
Total credits		$8,585 87

EXPENDITURES.

Market supplies	$1,899 76	
Groceries	748 85	
General supplies	389 70	
Feed	578 57	
Coal for buildings	344 50	
Coal for boats	688 07	
Ice	148 80	
Hospital supplies	148 73	
Farm expenses	51 85	
Repairs to boats	1,139 25	
Gasoline, coal oil, etc	220 50	
Subscription to maritime exchange	300 00	
General expenses	1,095 71	
Expenses for leper	221 74	
Lighting plant	143 60	
Total expenditures		8,119 63
Surplus of credit		$466 24
Balance to surplus, 1911		466 24

ABATEMENT OF NUISANCES A—VI (22).

Appropriation		$1,000 00
Collections		689 52
Total credits		$1,689 52

EXPENDITURES.

P. Flanigan & Sons	$362 28	
James McCrea & Sons	60 94	
James McCrea & Sons	161 45	
James McCrea & Sons	259 21	
William Hellbach	320 73	
Amounts carried forward	$1,164 61	$1,689 52

Amounts brought forward	$1,164 61	$1,689 52
P. Flanigan & Sons	187 14	
B. F. Sweeten & Son	78 77	
James McCrea & Sons	67 69	
P. Flanigan & Sons	114 70	
Total expenditures		1,612 91
Surplus of credit		$76 61
Balance to surplus, 1911		76 61

VAULT—HEALTH DEPARTMENT A—VI (22).

Appropriation		$2,000 00

EXPENDITURES.

Advertising	43 38	
Blue prints	75	
J. J. Walsh & Son	1,955 87	
Total expenditures		2,000 00

MUNICIPAL TUBERCULOSIS COMMISSION A—VI (22).

Appropriation		$1,100 00

EXPENDITURES.

The Henry Phipps Institute	$333 33	
Postage and incidental expenses, typewriting	40 16	
Total expenditures		373 49
Surplus of credit		$726 51
Balance to surplus, 1911		726 51

CORONERS A—VI (22).

Appropriation		$9,000 00
Transferred from Contingent Fund		83 33
Total receipts		$9,083 33

EXPENDITURES.

W. T. Reilly, M. D.	$1,000 00	
T. Sudler, M. D.	1,083 33	
Patrick F. Martin, M. D.	1,000 00	
G. Milton Linthicum, M. D.	1,000 00	
Otto M. Reinhardt, M. D.	1,000 00	
Silas Baldwin, M. D.	1,000 00	
Frederick Carruthers, M. D.	1,000 00	
Herbert C. Blake, M. D.	1,000 00	
Ronald T. Abercrombie, M. D.	1,000 00	
Total expenditures		9,083 33

QUARANTINE RECEIPTS A—VI (22).

Tonnage Tax.

January	$928 82	
February	705 51	
March	1,042 66	
April	1,062 10	
May	550 59	
June	602 20	
July	949 61	
August	1,089 02	
September	999 27	
October	1,317 37	
November	1,106 89	
December	1,874 01	
Total receipts		$12,228 05
Paid into City Treasury		12,228 05

HEALTH DEPARTMENT REVENUE A—VI (22).

Sale of Birth and Death Transcripts.

January	$82 00	
February	62 00	
March	91 00	
April	88 00	
May	72 50	
June	65 50	
July	73 60	
August	74 00	
September	77 00	
October	77 50	
November	71 50	
December	68 00	
Total receipts		$902 60
Paid into City Treasury		902 60

INSPECTOR OF BUILDINGS A—VI (23).

Appropriation, salaries $60,540 00

EXPENDITURES.

Edward D. Preston, Inspector of Buildings	$3,177 38	
Clarence E. Stubbs, Inspector of Buildings	2,014 14	
A. W. Cooper, Secretary	1,700 00	
J. J. Byrne, District Inspector	1,200 00	
Benj. G. Hawks, District Inspector	1,200 00	
Ignatius Burns, District Inspector	1,200 00	
Jos. R. Degenhart, District Inspector	1,200 00	
Thomas H. Elliott, District Inspector	1,200 00	
H. L. Hutchinson, District Inspector	1,200 00	
Wm. H. Schulz, District Inspector	1,200 00	
Henry Hepperla, District Inspector	1,200 00	
George A. Houck, District Inspector	1,200 00	
P. D. Copeland, District Inspector	1,200 00	
John L. Wartman, District Inspector	1,200 00	
Amounts carried forward	$20,091 52	$60,540 00

Amounts brought forward	$20,091 52	$60,540 00
Robert J. Collins, District Inspector	1,200 00	
Horace Ford, Supervisor City Improvements	1,187 50	
Thomas C. Harris, Assistant Supervisor City Improvements	1,200 00	
Charles J. Byrne, Assistant Supervisor City Improvements	1,200 00	
Charles S. Schafer, Assistant Supervisor City Improvements	1,200 00	
J. J. Purcell, Examiner	1,200 00	
J. C. Spedden, Examiner	1,200 00	
Stuart Purcell, Engineer Steel and Concrete	1,680 00	
D. D. Sheeshley, Inspector Steel and Concrete	1,500 00	
Elmer Altreith, Counter Clerk	1,000 00	
Walter Wilson, Counter Clerk	391 93	
Edward W. Dix, Notice Clerk	1,000 00	
Wm. F. Edwards, Building Permit Clerk	1,000 00	
W. J. Hickey, Building Permit Clerk	900 00	
Wm. H. Boone, Building Permit Clerk	900 00	
John J. McGrath, Record and File Clerk	1,000 00	
James W. McCuen, Furnace Inspector	1,500 00	
Wm. G. Reilly, Clerk to Furnace Inspector	900 00	
John J. Ward, Steam Plant Inspector	1,680 00	
John Skinner, Clerk to Steam Plant Inspector	1,000 00	
Lester L. Kingsbury, Electric Inspector	1,680 00	
Joseph N. Shew, Electric Inspector	1,400 00	
Charles M. Gantz, Electric Insepctor	1,400 00	
James F. O'Mailey, Clerk Electric Work	1,200 00	
John J. Roddy, Clerk Electric Work	900 00	
Wm. R. Hambury, Elevator Inspector	850 00	
C. P. Brown, Elevator Inspector	1,200 00	
Wm. H. W. Reed, Gasoline Inspector	1,200 00	
A. B. Thompson, Clerk Gas Pipe Inspector	900 00	
Wm. J. McDonnell, Fire Gong Inspector	1,200 00	
John J. Ledden, Tenement and Apartment House Inspector	850 00	
E. J. Anderson, Stenographer	600 00	
Wm. J. Carrick, Gas Pipe Inspector	1,200 00	
Patrick A. Sullivan, Gas Pipe Inspector	1,200 00	
Total expenditures		58,710 95
Surplus of credits		$1,825 05
Balance to surplus, 1911		1,829 05

REPAIRS TO CITY PROPERTY—CONSOLIDATED—A—VI (23).

Appropriation, 1911	$206,500 00
Transferred from Contingent Fund	150 00
Received from Wm. A. Parr	10 00
Received from Merchants & Miners Transportation Co	2,000 00
Total credits	$208,660 00

EXPENDITURES.

SCHOOLS.

Administration Building	$1,547 76	
Baltimore City College	2,449 93	
Western High School	1,242 15	
Amounts carried forward	$5,239 84	$208,660 00

Amounts brought forward	$5,239 84	$208,660 00
Polytechnic Institute	1,113 72	
Colored High School and Training School	2,014 46	
Eastern Female High School	1,904 46	
Parental School	331 04	
No. 1 School	1,329 67	
No. 2 School	368 56	
No. 3 School	684 12	
No. 4 School	833 56	
No. 5 School	1,508 71	
No. 6 School	129 69	
No. 7 School	3,031 42	
No. 8 School	387 32	
No. 9 School	952 75	
No. 10 School	949 70	
No. 11 School	1,542 34	
No. 12 School	609 77	
No. 13 School	866 69	
No. 14 School	739 74	
No. 15 School	1,074 78	
No. 16 School	821 38	
No. 17 School	364 29	
No. 18 School	385 73	
No. 20 School	1,333 95	
No. 21 School	881 65	
No. 22 School	486 10	
No. 23 School	621 73	
No. 24 School	1,651 23	
No. 25 School	1,053 42	
No. 26 School	460 14	
No. 27 School	783 72	
No. 28 School	266 17	
No. 29 School	530 72	
No. 30 School	1,280 17	
No. 31 School	1,050 76	
No. 32 School	1,696 89	
No. 33 School	1,620 76	
No. 34 School	864 58	
No. 35 School	933 07	
No. 37 School	805 84	
No. 38 School	214 36	
No. 39 School	1,287 36	
No. 40 School	1,120 42	
No. 42 School	1,667 31	
No. 43 School	934 82	
No. 43 Branch	190 24	
No. 44 School	594 21	
No. 45 School	1,058 86	
No. 46 School	3,472 82	
No. 47 School	748 02	
No. 48 School	1,000 80	
No. 49 School	1,823 83	
No. 50 School	1,086 92	
No. 50 Branch	9 00	
No. 51 School	798 61	
No. 52 School	330 00	
No. 53 School	580 94	
Amounts carried forward	$60,423 16	$208,660 00

Amounts brought forward	$60,423	16	$208,660 00
No. 54 School	1,587	38	
No. 55 School	1,253	01	
No. 56 School	194	24	
No. 57 School	402	02	
No. 58 School	1,014	12	
No. 59 School	242	54	
No. 60 School	2,019	01	
No. 60 Branch	33	60	
No. 61 School	2,030	28	
No. 62 School	410	16	
No. 63 School	2,260	95	
No. 64 School	159	22	
No. 64 Branch	80	00	
No. 65 School	1,488	09	
No. 66 School	184	05	
No. 67 School	358	02	
No. 68 School	438	47	
No. 70 School	231	58	
No. 71 School	1,127	21	
No. 72 School	1,335	85	
No. 73 School	664	52	
No. 74 School	1,716	11	
No. 75 School	1,655	37	
No. 76 School	567	07	
No. 77 School	673	82	
No. 78 School	984	54	
No. 79 School	765	26	
No. 80 School	722	70	
No. 81 School	771	11	
No. 82 School	600	78	
No. 83 School	3,723	25	
No. 84 School	747	53	
No. 85 School	488	66	
No. 86 Repair	138	82	
No. 91 School	662	45	
No. 92 School	1,346	70	
No. 93 and Branches	934	31	
No. 94 School	1,066	85	
No. 95 School	762	44	
No. 96 School	677	97	
No. 97 School	607	88	
No. 98 School	858	31	
No. 99 School	1,061	72	
No. 100 School	773	83	
No. 101 School	499	57	
No. 105 School	431	96	
No. 106 School	973	63	
No. 107 School	497	71	
No. 108 School	218	17	
No. 109 School	484	74	
No. 110 School	1,287	42	
Amounts carried forward	$104,646	70	$208,660 00

Amounts brought forward	$104,646 70	$208,660 00
No. 111 School	379 92	
No. 111 Branch	295 16	
No. 112 School	1,657 10	
No. 113 School	938 60	
No. 115 School	196 85	
No. 115 Branch	13 00	
No. 116 School	549 29	
No. 118 School	1,086 88	
No. 118 Branch	12 73	
Total Schools	$109,976 23	

ENGINE HOUSES.

No. 1 Engine House	$224 30	
No. 2 Engine House	542 41	
No. 3 Engine House	216 12	
No. 4 Engine House	768 52	
No. 5 Engine House and No. 3 Truck	401 76	
No. 6 Engine House	524 13	
No. 7 Engine House	119 03	
No. 8 Engine House	584 80	
No. 9 Engine House	1,141 44	
No. 10 Engine House	628 17	
No. 11 Engine House	287 36	
No. 12 Engine House	385 20	
No. 13 Engine House	557 00	
No. 14 Engine House	389 43	
No. 15 Engine House	725 44	
No. 16 Engine House	1,552 64	
No. 17 Engine House	90 74	
No. 18 Engine House	315 74	
No. 19 Engine House	285 12	
No. 20 Engine House	759 15	
No. 21 Engine House	828 08	
No. 22 Engine House and No. 17 Truck	695 72	
No. 23 Engine House	1,197 48	
No. 24 Engine House	272 08	
No. 25 Engine House	1,285 17	
No. 26 Engine House	132 69	
No. 27 Engine House	601 88	
No. 28 Engine House	582 66	
No. 29 Engine House	584 42	
No. 30 Engine House	993 86	
No. 31 Engine House	662 59	
No. 32 Engine House	90 12	
No. 33 Engine House	83 14	
No. 34 Engine House	450 87	
No. 36 Repair	36 46	
No. 37 Engine House	341 54	
No. 38 Repair	157 44	
No. 39 Engine House	106 58	
Total Engine Houses	$19,571 28	
Amounts carried forward	$129,547 51	$208,660 00

Amounts brought forward	$129,547 51	$208,660 00

TRUCK HOUSES.

No. 2 Water Tower	$223 16
No. 1 Truck	351 16
No. 2 Truck	311 28
No. 4 Truck	792 03
No. 5 Truck	359 22
No. 6 Truck	835 06
No. 10 Truck	588 94
No. 11 Truck	641 25
No. 12 Truck	307 77
No. 13 Truck	270 01
No. 14 Truck	597 76
No. 15 Truck	162 33
No. 16 Truck	203 72
Total Truck Houses	$5,643 69

MARKETS.

Bel Air Market	$457 21
Broadway Market	1,702 56
Centre Market	3,845 68
Cross Street Market	1,669 44
Hanover Market	349 27
Hollins Market	166 03
Lexington Market	1,810 29
Lafayette Market	7 37
Northeast Market	626 06
Richmond Market	1,158 45
Total Markets	$11,792 36

POLICE STATIONS.

Northwestern Police Station	$1,186 48
Northeastern Police Station	989 74
Central Police Station	962 84
Patrol Station	128 01
Northern Police Station	1,376 94
Southwestern Police Station	1,710 59
Eastern Police Station	629 29
Western Police Station	2,429 95
Southern Police Station	623 08
Total Police Stations	$10,036 92

STREET CLEANING DEPARTMENT.

Pratt Street Stable	$1,411 76
Granby Street Stable	30 14
Total Street Cleaning Department	$1,441 90

Amounts carried forward	$158,462 38	$208,660 00

Amounts brought forward	$158,462 38	$208,660 00

MISCELLANEOUS.

City Hall	$6,946 70	
City Hall Annex No. 1	1,477 07	
City Hall Annex No. 2	834 80	
City Jail	7,910 59	
Court House	7,085 72	
Quarantine	22 35	
Bay View Asylum	4,662 35	
City Morgue	257 87	
Patapsco Storage Company	10,320 29	
Vault, Health Department	1,852 92	
Bay View Asylum—Porches, Mangles, etc.	1,204 69	
Total Miscellaneous	$42,575 35	
Total expenditures		$201,037 73
Surplus of credit		$7,622 27
Balance to surplus, 1911		7,622 27

RECAPITULATION.

Schools	$109,976 23	
Engine Houses	19,571 28	
Truck Houses	5,643 69	
Markets	11,792 36	
Police Stations	10,036 92	
Street Cleaning Department	1,441 90	
Miscellaneous	42,575 35	
Total expenditures		$201,037 73

EMPTYING CESSPOOLS A—VI (23).

Appropriation	$300 00

EXPENDITURES.

No. 118 School	$20 00	
No. 118 Branch School	16 00	
No. 64 School	16 00	
No. 57 School	16 00	
No. 112 School	12 00	
No. 51 Branch School	8 00	
Parental	6 00	
No. 51 School	60 00	
No. 65 School	16 00	
No. 68 School	20 00	
No. 67 School	18 00	
No. 61 School	50 00	
No. 68 School	10 00	
No. 97 School	12 00	
No. 820 Scott Street	10 00	
Total expenditures		290 00
Surplus of credit		$10 00
Balance to surplus, 1911		10 00

INCIDENTALS A—VI (23).

Appropriation		$400 00
EXPENDITURES.		
Blueprints	$5 38	
Daily Papers	6 48	
Batteries	3 10	
Stamps	70 00	
Special Notices	84 13	
Repair Typewriter	11 85	
New Typewriter	82 20	
Rubber Stamp	8 60	
City Directory	7 00	
Tracing Paper	8 10	
Electric Fuses	3 46	
Annual Report	11 00	
Photographs	5 00	
Special Engineer	25 00	
Total expenditures		331 30
Surplus of credit		$68 70
Balance to surplus, 1911		68 70

LIVERY AND TRANSPORTATION A—VI (23).

Appropriation		$1,800 00
EXPENDITURES.		
Car tickets	$1,500 00	
Total expenditures		1,500 00
Surplus of credit		$300 00
Balance to surplus, 1911		300 00

REMOVAL OF DANGEROUS WALLS A—VI (23).

Debit balance from 1910	$1,499 17
Received from Smith & Bryan	1,499 17

3. PUBLIC CHARITY AND CORRECTION

SUPERVISORS OF CITY CHARITIES A—VI (24).

City Patients in Hospitals.

Appropriation		$70,875 00
EXPENDITURES.		
Mercy Hospital, 50 cents per diem per patient	$17,025 00	
Hospital for Consumptives, 50 cents per diem per patient	1,825 00	
Hospital for Crippled and Deformed Children, 50c. per diem per patient	4,197 50	
Amounts carried forward	$23,047 50	$70,375 00

Amounts brought forward	$23,047 50	$70,375 00
Maryland General Hospital, 50c. per diem per patient	10,387 50	
St. Agnes' Hospital, 50c. per diem per patient	6,293 50	
University of Maryland, 50c. per diem per patient.	10,354 50	
St. Joseph's, 50c. per diem per patient	10,237 50	
Homeopathic, 50c. per diem per patient	4,412 50	
Maryland State Tuberculosis Sanatorium, 50c. per diem per patient	2,190 00	
Jewish Home for Consumptives, 50c. per diem per patient	1,095 00	
College Physicians and Surgeons, Pasteur Department, $75 per patient	1,950 00	
Total expenditures		69,968 00
Surplus of credit		$907 00
Balance to surplus, 1911		907 00

REVENUE.

Amount received from patients in hospitals	$46 00
Paid into City Treasury	46 00

SYDENHAM HOSPITAL A—VI (24).

Appropriation, salaries	$10,420 00
Wages returned	2 42
Total credits	$10,422 42

EXPENDITURES.

Superintendent W. P. Morrill, M. D.	$1,979 09	
Assistant Physician, J. S. Brotherhood, M. D., 2 months	100 00	
Assistant Physician, R. W. Reynolds, M. D., 4½ months, 9 days	239 51	
Assistant Physician, J. E. Quigley, M. D., 5 months, 6 days	259 68	
Superintendent of Nurses, I. P. Kammerer	892 50	
Nurse, Chlorinda Thompson, 1 month, 12 days	48 55	
Nurse, Kathleen West, 4 months, 2 days	127 26	
Nurse, Julia Kensinger, 4 months, 13 days	154 68	
Nurse, Nellie E. Cook, 7 months, 2 days	275 08	
Nurse, Clara M. Case, 4 months, 8 days	149 03	
Nurse, Margaret H. Henderson, 2½ months	87 50	
Nurse, Chlorinda Thompson, 3½ months	166 09	
Nurse, Florence Madgeburg, 3½ months	122 50	
Nurse, Harriett S. Cooper, 7 months 2 days	247 26	
Nurse, Adele Scudder, 4 months, 12 days	153 56	
Nurse, Carrie E. Pangle, 7 months, 2 days	239 76	
Nurse, Zeta Shaw, 34 days	34 35	
Nurse, Clara B. Case, 9 days	9 03	
Nurse, Louise Morstatt, 5 months	160 00	
Special Nurse, Kate Roberts, 6 weeks, 3 days	160 71	
Amounts carried forward	$5,606 14	$10,422 42

Amounts brought forward	$5,606 14	$10,422 42
Special Nurse, M. Field, 15 days	53 57	
Special Nurse, I. M. Kersey, 4 months, 24 days	193 97	
Special Nurse, Sarah Mearns, 21 days	75 00	
Special Nurse, Ruth K. Jones, 3 days	10 71	
Supervisor, Mary L. Winter, 1½ months, 8 days	79 11	
Clerk, Leroy Knachel, 4 months, 10 days	174 72	
Clerk, Edgar Fay, 7 months, 9 days	362 90	
Cook, Mary Kennedy	300 00	
Laundress, Ella Rockel	300 00	
Maid, Mary Straughan	240 00	
Maid, Margaret Glenn	240 00	
Maid, Anna Hutchins, 5½ months, 1 day	110 65	
Maid, Sophia Beyer, 4 months, 1 day	80 97	
Orderly, Edward Vogler, 11 months	440 00	
Orderly, Edward Meehan, 1 month	40 00	
Orderly, Nicholas Sterner, 1 month	30 00	
Orderly, Michael Holloran, 11 months	326 61	
Driver, William Beeks	360 00	
Laborer, Bode McLain, ½ month	15 00	
Laborer, John J. Sterner, ½ month	15 00	
Laborer, James Keller, 1 month, 29 days	59 51	
Laborer, George Trice, 9 months	270 00	
Messenger, John Burns	360 00	
Total expenditures		9,743 86
Surplus of credit		$678 56
Balance to surplus, 1911		678 56
Appropriation, expenses		$16,800 00

EXPENDITURES.

Subsistence	$4,328 28	
Department expenses	3,619 24	
General house and property expenses	2,336 09	
Capital expenses	1,434 84	
Professional care of patients	1,860 50	
Administration expenses	3,073 65	
Total expenditures		16,652 60
Surplus of credit		$147 40
Balance to surplus, 1911		147 40

REVENUE.

Amount collected for care of patients		$343 05
Catherine Burkhardt	$66 81	
Helen Thompson	41 00	
C. N. Ried	23 57	
Viola Barthold	31 43	
Lenora Asunsolo	10 00	
Ballard Burgher	21 43	
A. H. Turner	35 81	
B. L. Spindelt	17 86	
Amounts carried forward	$247 91	$343 05

Amounts brought forward	$247 91	$343 05
Emily Blunt	40 00	
A. Schumacher & Co	28 00	
L. Friedman	20 00	
Dr. George Loeffler	7 14	
Total revenue		343 05
Paid into City Treasury		343 05

INFECTIOUS DISEASE HOSPITAL A—VI (24).

Received from Frank A. Furst for Lot No. 1 of Old Marine Hospital property	$3,855 00
Carried forward to 1912	3,855 00

ADDITIONAL BUILDING, SYDENHAM HOSPITAL, A—VI (24).

Appropriation	$30,000 00
Carried forward to 1912	30,000 00

INSANE A—VI (25).

Appropriation, care of insane	$146,500 00
Balance from 1910	34,000 00
Total credits	$180,500 00

EXPENDITURES.

Maryland Hospital for the Insane (Spring Grove Asylum) $100 per annum per patient	$32,121 63	
Springfield State Hospital for the Insane, $100 per annum per patient	82,098 31	
Mt. Hope Retreat, $150 per annum per patient	37,416 72	
Physicians' certificates	373 00	
Typewriter	60 05	
Entertainments (moving pictures for insane at Bay View)	87 50	
Expense of exhibit at exposition	246 52	
Transfer of Annie Fredel from Bay View to Springfield	2 40	
Special car for transferring insane patients from Bay View to Springfield	10 00	
Special car for transferring insane patients from Bay View to Springfield	27 95	
Transferring Mamie Winters from Insane Department at Bay View to Texas, Md	2 20	
Total expenditures		152,446 28
Surplus of credit		$28,053 72
Balance to surplus, 1911		28,053 72

BOARD OF INSANE A—VI (25).

Amount received for board of inmates in hospitals for insane	$17,713 65
Less refund	376 67
Total receipts	$17,336 98
Paid into City Treasury	17,336 98

DESTITUTE AND NEGLECTED CHILDREN A—VI (26).

Appropriation		$27,000 00
EXPENDITURES.		
Home of the Friendless, 20c. per diem each inmate.	$653 00	
Maryland Home for Friendless Colored Children, 20c. per diem each inmate	937 20	
Nursery and Child's Hospital, 20c. per diem each inmate	1,587 80	
St. Elizabeth's Home, 20c. per diem each inmate	3,579 60	
St. Joseph's House of Industry, 24c. per diem each inmate	1,228 08	
St. Vincent's Male Orphan Asylum, 22c. per diem each inmate	1,606 00	
St. Mary's Female Orphan Asylum, 24c. per diem each inmate	6,648 00	
Home of the All Saints Sisters of the Poor, 20c. per diem each inmate	964 40	
St. Vincent's Infant Asylum, 20c. per diem each inmate	1,927 80	
Total expenditures		19,131 88
Surplus of credit		$7,868 12
Balance to surplus, 1911		7,868 12
REVENUE.		
Amount received for board of children in institutions		$56 20
Paid into City Treasury		56 20

SUPERVISORS OF CITY CHARITIES A—VI (27).

WORKHOUSES, ALMSHOUSES.

Appropriation, salaries, city offices		$8,860 00
EXPENDITURES.		
Salaries to December 15, 1911:		
Secretary, Nathaniel G. Grasty	$2,500 00	
Visitor-in-Chief, T. James Hunter	1,400 00	
Admit Clerk, George Schuster	1,100 00	
Clerk and Visitor, Mrs. Emily Duvall	900 00	
Visitor, Miss Elizabeth S. Walsh	720 00	
Visitor, Miss Mary O. Simpson	720 00	
Visitor, Mrs. Laura B. Hepburn	660 00	
Clerk and Stenographer, Mrs. Pearl DeBaer	480 00	
Clerk and Stenographer, Miss Mary A. Maycumber	227 00	
Extra clerical service	22 14	
Total expenditures		8,729 14
Surplus of credit		$130 86
Balance to surplus, 1911		130 86
Appropriation, expenses, city offices		$1,500 00
EXPENDITURES.		
Car tickets	$200 00	
Postage	305 04	
Amounts carried forward	$505 04	$1,500 00

Amounts brought forward	$505 04	$1,500 00
Railroad expenses	836 99	
Incidentals	120 43	
Printing	30 25	
Total expenditures		1,492 71
Surplus of credit		$7 29
Balance to surplus, 1911		7 29

BAY VIEW ASYLUM A—VI (27).

Appropriation, salaries		$53,590 00
Wages returned		24 90
Total credits		$53,614 90

EXPENDITURES.

Lamar Hollyday, Superintendent	$2,000 00	
D. E. Hammond, Purveyor	1,200 00	
Two Office Clerks	1,200 00	
Gus Neumann, Supervisor	900 00	
W. H. Hannssen, Assistant Supervisor	517 50	
James J. Farrell, Chief Engineer	1,195 00	
C. F. Farley, Assistant Engineer	1,000 00	
Two Plumbers	857 82	
C. B. Thompson, Matron 4 months	200 00	
M. E. Little, Matron 7½ months	450 00	
Mary Mercer, Superintendent of sewing room	360 00	
C. C. Thomas, Baker	900 00	
Thomas Conner, Messenger	720 00	
Charge W. M. Receiving Ward	101 00	
Two Charges W. F. Receiving Ward	363 39	
Charge Col. F. Receiving Ward	216 00	
Assistant, Col. F. Receiving Ward	30 00	
Two Assistant Matrons	380 00	
R. W. Thompson, Carpenter	903 00	
J. B. Hunter, Farmer	720 00	
Charles Richardson, Gardener	476 00	
Charge Children's Ward	216 00	
Charge Male Annex	259 44	
Visiting Physicians	335 00	
Eleven Firemen	1,172 67	
Two Charges Laundry	323 56	
Eleven Help, Laundry	447 30	
Twenty-two Farm Laborers	1,255 90	
Thomas R. Boggs, Physician-in-Chief	2,875 00	
Arthur M. Shipley, Surgeon-in-Chief	958 34	
Walter A. Baetjer, Resident Physician, six months	306 56	
Claud Smink, Resident Physician, six months	591 67	
L. E. Bransford, Surgeon-in-Chief	110 87	
Fifteen Assistant Surgeons	780 20	
Miss E. J. Daly, Supt. of Nurses, 3½ months	240 00	
C. A. Turford, Supt. of Nurses, 2½ months	156 00	
Miss Eleanor Jones, Assistant Supt. of Nurses	105 48	
Miss Madeline Moysey, Night Assist. of Nurses	104 03	
Seventeen Head Ward Nurses	2,654 64	
Thirty-three Assistant Ward Nurses	1,857 62	
Amounts carried forward	$29,439 99	$53,614 90

Amounts brought forward	$29,439 99	$53,614 90
Two Apothecaries	630 00	
Dr. Gordon Wilson, Physician-in-Chief Phthisical Hospital	739 58	
W. V. Parramore, Resident Physician Phthisical Hospital	184 16	
R. G. Hussey, Resident Physician Phthisical Hospital	150 00	
Four Assistant Resident Physicians	240 06	
E. H. Heoppner, Supervising Nurse Phthisical Hospital, 7½ months	373 39	
M. J. Heiser, Supervising Nurse Phthisical Hospital, 2½ months	142 26	
Four Head Ward Nurses and twelve Assistants, Phthisical Hospital	3,272 63	
H. D. Purdum, Physician-in-Chief of Insane	1,500 00	
Burt Asper, Resident Physician of Insane	150 00	
Three Assistant Resident Physicians	169 73	
Supervisor Male Insane	600 00	
Fifty-nine Male Attendants	3,590 00	
Three Female Supervisors	462 24	
Sixty-three Female Attendants	5,140 58	
Five Cooks	1,391 53	
Six Assistant Cooks	256 02	
Three Stenographers	347 10	
Engineer's Help, Watchmen, Gate Keepers, Carriage Driver, etc	2,397 86	
Total expenditures		51,177 13
Surplus of credit		$2,437 77
Balance to surplus, 1911		2,437 77
Appropriation, expenses		$135,359 00
Transferred from Contingent Fund		1,696 94
Total credits		$137,055 94

EXPENDITURES.

General subsistence, meats, groceries, provisions	$85,421 47	
Dry goods, clothing, shoes, etc	7,024 80	
Drugs	4,165 85	
Hospital supplies	2,849 17	
Laboratory	579 11	
Stables, cost of feed, shoeing, etc	1,120 62	
Light	3,205 69	
Bedding, blankets, etc	3,271 39	
Printing, ordinary repairs and general expenses	5,360 32	
Coal	16,263 04	
Laundry supplies	1,606 21	
Exchange of cows	244 00	
Purchasing thirteen cows	620 00	
Purchasing two horses	600 00	
Purchasing one boar	27 50	
Labor roll	2,133 77	
Special improvements	2,562 37	
Total expenditures		137,055 94

REVENUE A—VI (27).

Received for board and old material	$628 93
Paid into City Treasury	628 93

POWER HOUSE AND MACHINERY, BAY VIEW ASYLUM A—VI (27).

Appropriation	$125,000 00
Unexpended balance carried forward from 1910	18,577 17
Total credits	$143,577 17

EXPENDITURES.

Thomas C. Basshor & Co., contractors	$79,252 61	
Fred. Decker & Co	21,850 91	
Parker, Thomas & Rice	1,800 00	
Topographical Survey	3 27	
Maryland Lime and Cement Co	15 00	
Charles Lentz	60 00	
Kingsbury Samuels	20,993 40	
W. G. Morris	210 00	
Southern Electric Co	258 40	
Total expenditures		124,443 59
Surplus of credit		$19,133 58
Balance carried forward to 1912		19,133 58

MANGLES AND PORCHES, NURSES' HOME, BAY VIEW ASYLUM A—VI (27).

Appropriation	$5,000 00

EXPENDITURES.

Advertising	$52 95	
American Laundry Machine Co	2,385 00	
Board City Charities	2,562 05	
Total expenditures		5,000 00

FURNISHING NEW HOSPITAL, BAY VIEW ASYLUM A—VI (27).

Appropriation	$3,500 00

EXPENDITURES.

E. B. Meyrowitz & Co	$55 51	
Charles Willms Surgical Instrument Co	18 00	
Fred Walpert & Co	25 80	
Arthur H. Thomas & Co	194 23	
W. W. Wilkins & Co	196 80	
Daniel Miller Co	13 62	
R. M. Sutton & Co	43 52	
Bernstein Mfg. Co	1,262 83	
Southern Electric Co	10 71	
Schuster & Co	448 00	
Lucas & Co	69 50	
Amounts carried forward	$2,338 52	$3,500 00

Amounts brought forward	$2,338 52	$3,500 00
Electro Surgical Instrument Co	26 55	
John Turnbull & Co	84 00	
Heyward Bros. & Wakefield Co	496 01	
M. L. Himmel & Sons Co	112 50	
Maag-Wahmenn & Co	42 74	
Ernest Leitz	269 00	
J. E. Beck	22 00	
Young & Selden Co	13 85	
J. W. Ramsay & Co	4 20	
Origonal Herring & Sons Co	4 33	
Wappler Electric Co	33 30	
International Instrument Co	53 00	
Total expenditures		3,500 00

ADDITIONAL LAND FOR INSTITUTIONAL WORK, TUBERCULOSIS HOSPITAL, BAY VIEW ASYLUM A—VI (27).

Appropriation,	$16,500 00
Transferred from Inspector of Buildings	3,767 69
Total credits	$20,267 69

EXPENDITURES.

Central Metal and Supply Co	$27 50	
Origonal Herring & Sons Co	45 00	
Maryland Coppersmith Co	22 08	
Consolidated Gas Co	165 00	
Dulany-Vernay Co	11 30	
Wallace Gale Co	3 24	
F. E. Pegram	75 60	
P. M. Womble	76 77	
P. J. Cushen	10,520 95	
Smith Estate	8,978 13	
Taxes on Estate	337 62	
W. P. Cole	4 50	
Total expenditures		20,267 69

NEW IMPROVEMENTS, BAY VIEW ASYLUM A—VI (27).

Carried forward from 1910	$28,864 64

EXPENDITURES.

Paid Daniel Harding, contractor, for work done on new hospital	$8,649 00	
F. W. Stansbury	4,446 88	
Charles W. Grant	7,092 07	
Hubbard & Eccleston	287 15	
Eugene I. Rosenfeld & Co	1,352 00	
Hudson Cement Co	86 31	
Alexander Davis	63 81	
Warfield & Sullivan	120 00	
Baltimore Mosaic Co	991 60	
Amounts carried forward	$23,088 82	$28,864 64

Amounts brought forward	$23,088 82	$28,864 64
Otis Elevator Co	58 00	
C. E. Colvin	65 50	
Wallace & Gale Co	55 33	
H. Meiser	104 50	
H. G. Morris	1,100 00	
Heise, Bruns & Co	540 30	
Thomas C. Basshor & Co	8 41	
Ramsay Barry	50 27	
Total expenditures		25,071 13
Surplus of credit		$3,793 51
Balance carried forward to 1912		3,793 51

LODGING HOUSES A—VI (28).

TEMPORARY CARE OF HOMELESS MEN.

FRIENDLY INN.

Appropriation		$1,000 00
Furnishing meals and lodging to 5,000 men, at 10 cents per day, as per contract	$500 00	
Furnishing meals and lodging to 1,950 men, at 10 cents per day, as per contract	195 00	
Furnishing meals and lodging to 1,750 men, at 10 cents per day, as per contract	175 00	
Furnishing meals and lodging to 1,300 men, at 10 cents per day, as per contract	130 00	
Total expenditures		1,000 00

PRISONS AND REFORMATORIES A—VI (29).

BALTIMORE CITY JAIL.

Appropriation, salaries		$36,650 00

EXPENDITURES.

Charles A. Hook, Warden	$1,999 92	
Harry C. Martin, Clerk	1,643 75	
Geo. L. Wilkins, Physician	1,500 00	
Jas. F. Macullar, Deputy Warden	1,200 00	
John McCusker, Engineer	999 97	
Louis Forster, Engineer	999 97	
John O'Donnell, Keeper	902 68	
John Stout, Keeper	902 68	
J. Harry Jenkins, Keeper	458 32	
John H. Doud, Keeper	472 50	
George Friese, Keeper	900 00	
Henry C. Lecron, Keeper	900 00	
John P. Towson, Keeper	900 00	
Joseph Steinberger, Keeper	900 00	
Guy Upperco, Keeper	900 00	
Wm. Stevenson, Keeper	900 00	
Henry H. Levelle, Keeper	900 00	
Amounts carried forward	$17,379 79	$36,650 00

Amounts brought forward	$17,379 79	$36,650 00
Matthew McGuire, Keeper	900 00	
Henry A. Schaub, Keeper	900 00	
Thomas Mitchell, Keeper	900 00	
Hugh O'Connor, Keeper	900 00	
William Donaldson, Keeper	900 00	
Adam J. Kuhn, Keeper	900 00	
Harry Klunk, Night Captain	949 99	
William Graham, Keeper	895 08	
Charles Howell, Keeper	900 00	
H. W. Porcher, Keeper	900 00	
Charles P. Murphy, Keeper	900 00	
John McGrain, Keeper	900 00	
Albert A. Shaw, Keeper	900 00	
Peter Cull, Keeper	894 92	
J. E. Murphy, Keeper	683 48	
John E. Clark, Keeper	211 70	
Thomas Hopper, Keeper	900 00	
Henry H. Houseman, Assistant Clerk	331 46	
Alva H. York, Assistant Clerk	75 00	
Frank H. Kelly, Assistant Clerk	294 76	
J. J. Morrissey, Assistant Physician	300 00	
Frank McDermott, Fireman	177 16	
A. F. Williams, Fireman	264 00	
Thomas A. Carnes, Fireman	63 88	
Frank Clabaugh, Fireman	6 00	
W. F. Kelly, Fireman	545 04	
John Dembinski, Fireman	366 00	
Mrs. Martin, Matron	720 00	
Mrs. Drury, Matron	720 00	
Mrs. Pridham, Matron	630 00	
Mrs. Sampson, Matron	77 46	
Total expenditures		36,385 72
Surplus of credit		$264 28
Balance to surplus, 1911		264 28
Appropriation, expenses		$28,500 00
Flour	$5,713 75	
Meats	5,821 53	
General groceries	5,828 28	
Heating and lighting	458 59	
Machinery and supplies	794 44	
Clothing, dry goods, etc	2,738 07	
Sanitary	1,554 12	
Hospital, drugs	637 90	
Hospital, subsistence	195 01	
Incidental expenses	1,798 25	
Warden's subsistence	999 92	
Filing cases, Clerk's Office	957 83	
Total expenditures		27,497 69
Surplus of credit		$1,002 31
Balance carried forward to 1912		1,002 31

TRANSPORTATION TO HOUSE OF CORRECTION A—VI (29).

Appropriation	$500 00

EXPENDITURES.

Baltimore and Ohio Railroad Company	372 82
Surplus of credit	$127 18
Balance to surplus, 1911	127 18

REVENUE BALTIMORE CITY JAIL A—VI (29).

Maryland Veneer and Basket Co	$4,715 56
Hawkins Shirt Co	6,310 90
U. S. Marshal	1,598 00
U. S. Immigration Commissioner	47 00
Miscellaneous, board, junk, etc	85 41
Total receipts	$12,756 87
Paid into City Treasury	12,756 87

REFORMATORIES A—VI (29).

Appropriation	$117,423 00

EXPENDITURES.

Maryland School for Boys, maintenance, $6.66 2-3 per month per capita	$6,152 66	
Maryland School for Boys, manual training, $5.00 per month per capita	5,127 22	
St. Mary's Industrial School, maintenance of boys, $6.66 2-3 per month per capita	48,000 00	
Industrial Home for Colored Girls, maintenance, $6.66 2-3 per month per capita	5,762 96	
House of Good Shepherd, maintenance, $6.08 1-3 per month per capita	5,183 00	
House of Good Shepherd for Colored Girls, maintenance, $4.75 per month per capita	4,540 00	
Maryland Industrial School for Girls, maintenance, $10 per month per capita	5,976 49	
House of Reformation for Colored Boys, $6.66 2-3 per month per capita	24,000 00	
National Junior Republic, maintenance of boys, $6.66 2-3 per month per capita	1,783 99	
Home for Fallen Women, maintenance, $10.00 per per month per capita	1,080 00	
Universal Progressive School for Colored Destitute Orphan Children, maintenance, $6.66 2-3 per month per capita	1,200 00	
Total expenditures		108,806 32
Surplus of credit		$8,616 68
Balance to surplus, 1911		8,616 68

INDUSTRIAL HOME FOR COLORED GIRLS—NEW IMPROVEMENTS.

Appropriation		$2,500 00
EXPENDITURES.		
W. H. and C. F. Thompson	$2,500 00	
Total expenditures		2,500 00

MARYLAND INDUSTRIAL SCHOOL FOR GIRLS A—VI (29).

Appropriation, improvements		$2,000 00
EXPENDITURES.		
Edward J. Burke	$485 85	
Ignatius Smith	693 88	
Albert Johnson & Son	320 75	
George J. Roche & Son	199 73	
Charles L. Stockhouser	135 00	
Henry Whalen	36 57	
Frank Holden	58 57	
John F. Somerlock	33 00	
Griffith, Turner & Co	9 08	
Willis Corbin	6 25	
Baltimore Lime Company	5 00	
Conrad Enrish	8 50	
C. F. Hood	3 00	
Auto Supply Co	3 35	
Incidentals	1 25	
Total expenditures		1,999 78
Surplus of credit		$0 22
Balance to surplus, 1911		22

ADDITIONAL BUILDING BALTIMORE CITY JAIL A—VI (29).

Appropriation		$10,030 86
Amount carried from 1910		13,392 74
Total credits		$23,423 60
EXPENDITURES.		
T. W. Pietsch, commission	$1,001 41	
Southern Supply Co., beds	852 96	
J. S. Turner Co., canvas	231 00	
Turnbull, Todd Co	31 58	
Davis Peoples, builder	18,770 15	
Total expenditures		20,887 10
Surplus of credit		$2,536 50
Amount carried forward to 1912		2,536 50

DISPENSARY SERVICE A—VI (30).

Appropriation		$9,000 00
EXPENDITURES.		
Eastern Dispensary	$1,240 75	
Northeastern Dispensary	1,425 00	
Baltimore General Dispensary	1,385 45	
Baltimore Eye, Ear and Throat Charity Hospital Dispensary	700 00	
City Medical Agency, Southern District	1,227 89	
City Medical Agency, Northwestern District	1,289 46	
City Medical Agency, Western District	1,241 48	
Total expenditures		8,510 03
Surplus of credit		$489 97
Balance to surplus, 1911		489 97

TRANSPORTATION OF POOR TO THEIR HOMES A—VI (30).

Appropriation		$1,000 00
EXPENDITURES.		
Paid for transportation in January	$25 91	
Paid for transportation in February	37 40	
Paid for transportation in March	1 50	
Paid for transportation in April	31 65	
Paid for transportation in May	114 96	
Paid for transportation in June	19 58	
Paid for transportation in July	72 35	
Paid for transportation in August	63 02	
Paid for transportation in September	7 85	
Paid for transportation in October	20 20	
Paid for transportation in November	38 35	
Paid for transportation in December	34 40	
Total expenditures		467 17
Surplus of credit		$532 83
Balance to surplus, 1911		532 83
REVENUE.		
Received from various sources		$72 13
Paid into City Treasury		72 13

PENSION ACCOUNT W. H. WAR A—VI (30).

Appropriation		$260 00
EXPENDITURES.		
Paid W. H. War $5 per week during 1911 (52 weeks)		260 00

CARE OF HABITUAL DRUNKARDS A—VI (30).

Appropriation		$2,790 00
Transferred from Contingent Fund		1,425 00
Total credits		$4,215 00

EXPENDITURES.

Paid Springer Sanitarium, 19 cases, $100 each	$1,900 00	
Paid Springer Sanitarium, 1 case, $25	25 00	
Paid Neal Institute, 20 cases, $75 each	1,500 00	
Paid Edgewood Sanitarium, 1 case, $100	100 00	
Paid court cost	682 50	
Total expenditures		4,207 50
Surplus of credit		$7 50
Balance to surplus, 1911		7 50

4. PUBLIC WORKS

CITY ENGINEER'S DEPARTMENT A—VI (31).

Appropriation, salaries		$44,230 00

EXPENDITURES.

B. T. Fendall, City Engineer	$3,750 00	
H. K. McCay, City Engineer	937 50	
George M. Boteler, Chief Clerk and Paymaster	1,643 75	
James R. Dunlop, Permit Clerk	1,000 00	
W. S. Taylor, Bookkeeper	1,000 00	
Edward S. Brittain, Stenographer	900 00	
Milton H. Clarke, Stenographer	27 50	
George M. Hall, Clerk	570 00	
J. Harry Griffith, Clerk	150 00	
James A. Paige, Assistant City Engineer	2,386 67	
Frank K. Duncan, Assistant Engineer	1,341 64	
S. R. Alexander, Assistant Engineer	1,500 00	
R. M. Cooksey, Assistant Engineer	1,086 68	
James W. Ogier, Draughtsman	884 10	
George M. Dersch, Clerk	360 00	
L. J. Hayden, Clerk	300 00	
E. P. Tuchton, Clerk	64 84	
N. M. Gray, Assistant City Engineer	2,400 00	
John S. Patterson, Assistant Engineer	1,500 00	
H. F. Siemers, Assistant Engineer and Draughtsman	1,200 00	
D. W. Brawner, Clerk	720 00	
R. K. Compton, Assistant City Engineer	1,000 00	
Joseph Greenbaum, Assistant Engineer	1,500 00	
R. B. Bowie, Assistant Engineer	1,500 00	
R. F. Hook, Assistant Engineer	400 00	
P. A. Gibbons, Assistant Engineer	800 00	
P. A. Gibbons, Inspector	400 00	
P. C. Painter, Inspector	421 89	
E. F. Sullivan, Clerk	720 00	
Frank H. Beall, Chief Inspector	1,500 00	
Wm. T. Garrett, Inspector	1,200 00	
Amounts carried forward	$33,164 57	$44,230 00

Amounts brought forward	$33,164 57	$44,230 00
George H. Zimmerman, Inspector	1,200 00	
James C. G. Unduch, Inspector	1,200 00	
Charles W. Whittle	1,200 00	
George E. Hilton, Draughtsman	905 40	
Joseph B. Maguire, Chief Footway Inspector	1,200 00	
Wm. S. Wood, Footway Inspector	900 00	
L. H. Chaney, Footway Inspector	900 00	
J. E. Beahan, Footway Inspector	900 00	
D. D. Porter, Footway Inspector	900 00	
Total expenditures		42,469 97
Surplus of credit		$1,760 03
Balance to surplus, 1911		1,760 03

Appropriation, incidental expenses $1,000 00

EXPENDITURES.

Postage stamps and postal cards	$225 00	
Printing annual report for 1910	175 55	
Official bonds	90 00	
Engineering magazines	8 00	
B. T. Fendall, expenses to Salisbury, N. C.	35 50	
R. K. Compton, expenses to New York	17 10	
H. K. McCay, expenses to New York	16 00	
H. K. McKay, expenses to Washington	8 70	
Photographing Edmondson Avenue Bridge	5 00	
Walter M. Jordan, duplicating	15 00	
Dow & Smith, preparing specifications (asphalt)	50 00	
Monarch typewriter	79 58	
Automobile license and robes	24 00	
Drawing supplies	18 08	
Freight	3 50	
City Directory	7 00	
Blueprinting	2 51	
King Bros, printing	4 50	
Repairing level box	65	
Repairing cash tray	65	
Badges for foremen	2 00	
Cabinet	11 00	
Repairing typewriters	19 75	
Repairing automobile clock	2 50	
Cardboard	60	
Total expenditures		822 17
Surplus of credit		$177 83
Balance to surplus		177 83

Appropriation, livery and transportation $2,500 00

EXPENDITURES.

City car tickets	$2,300 00	
Hire of automobile	8 00	
Hire of horse and buggy	48 00	
Total expenditures		2,356 00
Surplus of credit		$144 00
Balance to surplus, 1911		144 00

Appropriation, advertising		$300 00
EXPENDITURES.		
A. S. Abell Co	$71 05	
E. Raine	97 78	
Charles C. Fulton & Co	101 93	
Baltimore Star	7 50	
Daily Record Publishing Co	4 22	
Total expenditures		282 48
Surplus of credit		$17 52
Balance to surplus, 1911		17 52

COMMISSIONERS FOR OPENING STREETS A—VI (31).

Appropriation, salaries		$10,187 50
Expenditures from December 1-15, 1910, to December 15, 1911:		
Commissioner, James H. Smith, 9 months	$1,350 00	
Commissioner, Bushrod M. Watts, 12½ months	1,875 00	
Commissioner, Henry F. New, 12½ months	1,875 00	
Commissioner, Eugene E. Grannan, ½ month	75 00	
Clerk to Board, Eugene F. Rodgers, 12½ months	1,562 50	
Real Estate Man, Samuel F. Sharretts, 12 months	1,800 00	
Assistant Real Estate Man, Frank P. Kavanaugh, 12 months	1,200 00	
Total expenditures		9,737 50
Surplus of credit		$450 00
Balance to surplus, 1911		450 00
Appropriation, expenses		$500 00
EXPENDITURES.		
Newspapers	$16 46	
Directory	7 00	
Trasportation	118 00	
Stamps	20 00	
Stationery	23 00	
Premiums on bonds	47 50	
Industrial Exposition (booth)	45 00	
Typewriter	45 75	
Miscellaneous	24 40	
Total expenditures		347 11
Surplus of credit		$152 89
Balance to surplus, 1911		152 89

SUPERINTENDENT OF LAMPS AND LIGHTING A—VI (31).

Appropriation, salaries		$15,324 00
EXPENDITURES.		
Robert J. McCuen, Superintendent of Lamps and Lighting	$2,958 33	
William Mohr, Assistant Superintendent of Lamps and Lighting	1,500 00	
Amounts carried forward	$4,458 33	$15,324 00

Amounts brought forward	$4,458 33	$15,324 00
James N. Baggett, Chief Inspector	1,500 00	
George Hocheder, Clerk and Stenographer	900 00	
Wm. H. Stoffel, Inspector of Illuminating Oils	832 00	
Charles Heinritz, Mechanic	936 00	
Benjamin T. Wells, Superintendent Eastern District	832 00	
Harry White, Superintendent Northeastern District	832 00	
Charles Dillinger, Superintendent Western District	832 00	
James H. Carter, Superintendent Northwestern District	832 00	
Adam Hensel, Superintendent Northern No. 1 District	832 00	
Harry C. Kennedy, Superintendent Northern No. 2 District	832 00	
John Bowers, Superintendent Southern District	832 00	
Frank F. Bush, Superintendent Central District	832 00	
Total expenditures		15,282 33
Surplus of credit		$41 67
Balance to surplus, 1911		41 67
Appropriation, expenses		$350 00

EXPENDITURES.

Advertising	$168 87	
Car tickets	50 00	
Postage stamps	28 50	
Printing annual reports (1910)	35 60	
Drawing instruments	26 60	
Typewriting reports	9 07	
Freight and express charges	4 45	
City Directory	7 00	
Sundry items—blue prints, repairs, notary public, drills, etc	16 64	
Total expenditures		346 73
Surplus of credit		$3 27
Balance to surplus, 1911		3 27

DEPARTMENT OF STREET CLEANING A—VI (31).

Appropriation, salaries		$26,720 00

EXPENDITURES.

Commissioner of Street Cleaning, J. L. Wickes	$2,383 06	
Commissioner of Street Cleaning, Wm. A. Larkins	612 90	
General Superintendent Street Cleaning Division, William A. Larkins	1,300 12	
General Superintendent Street Cleaning Division, M. Doonan	160 41	
General Superintendent Sanitary Division, B. Preston Usilton	1,650 00	
Amounts carried forward	$6,106 49	$26,720 00

Amounts brought forward	$6,106 49	$26,720 00
Chief Clerk and Paymaster, F. G. Whelan	1,500 00	
Assistant Clerk, Wm. E. Anderson, Jr	720 00	
Stenographer, C. B. Barakat	900 00	
Clerk, S. C. Mann	957 50	
Superintendent First District, Wm. Wiebking	1,000 00	
Superintendent Second District, M. Doonan	900 77	
Superintendent Second District, John Hunt	97 22	
Superintendent Third District, Jas. C. Callahan	1,000 00	
Superintendent Fourth District, Thomas Zehnter	1,000 00	
Superintendent Fifth District, B. T. Sarber	1,000 00	
Superintendent Sixth District, John Murray	850 00	
Superintendent Sixth District, John Gist	350 00	
Superintendent Seventh District, Ed. Callahan	1,000 00	
Superintendent Machine Sweeping, James Crouch	1,000 00	
Superintendent Central District, Sanitary Division, John Holden	1,200 00	
Superintendent Northern District, Sanitary Division, Wm. P. Fannin	1,200 00	
Superintendent Western District, Sanitary Division, John Gist	850 00	
Superintendent Western District, Sanitary Division, George Greene	350 00	
Superintendent Southern District, Sanitary Division, James Kane	1,200 00	
Inspector, Thomas L. Hines	900 00	
Assistant Inspector, Wm. Fabizak	600 00	
Assistant Inspector, Frank Rochester	600 00	
Dump Inspector, Peter Holden	715 00	
Total expenditures		25,996 98
Surplus of credit		$723 02
Balance to surplus		723 02
Appropriation, expenses		$2,720 00

EXPENDITURES.

Comptroller's Department, car tickets	$720 00	
Comptroller's Department, stamps	120 00	
J. C. McCarthey, maps	33 75	
Wm. A. Flamm, maps	12 00	
Meyer & Thalheimer, desks and printing	86 46	
A. M. Webb, notary fees	101 40	
H. Fishbon, newspapers	6 48	
National Towel Co., towel service	13 50	
Fred Hesse, sharpening tools	11 15	
Wansch & Dobos, salamander	5 50	
L. P. Herpel, newspapers	5 34	
Maryland Wagon Works, wagon	62 00	
R. L. Polk & Co., directory	7 00	
John Ditmar & Sons, desk standards	2 50	
Municipal Journal, newspapers	3 00	
Red "C" Oil Co., oils	9 78	
John T. Brady, rent	6 00	
John E. Gist, rent	6 00	
John Dunn, rent	6 00	
Amounts carried forward	$1,217 86	$2,720 00

Amounts brought forward	$1,217 86	$2,720 00
Dr. Stewart, service	6 00	
Wm. T. Mitchell, supplies	3 62	
F. Hemmeter, auto supplies	15 00	
Robert Hety, coal	13 10	
George J. Thaler, stove	13 70	
Bolton Bros., supplies	10 00	
Wm. C. Robinson, oil	8 00	
Consolidated Gas Electric Light and Power Co., service	80 00	
H. J. Gettemuller, paint	8 75	
J. A. Limerick, badges	14 00	
J. L. Wickes, trip to New York on City business	57 00	
Crouch-Lesser Co., printing	40 00	
Fowler Towel Co., towel service	4 50	
M. Solmson Fly Screen Co., screens	4 50	
Liberty Brass Co., castings	4 50	
W. I. Russell, paper cutter	3 50	
U. S. Fidelity Co., bonds	65 61	
W. O. Atwood, survey	40 00	
Baltimore "Sun," proposals	121 46	
P. O. Department, repairs to mail box	9 50	
W. J. Groeinger, photographs	3 00	
Carl Spoerer's Sons Co., repair	13 12	
McGraw-Hill Co., books	5 00	
Goodyear Rubber Tire Co., rubber tire	12 00	
Baltimore "News," proposals	67 00	
Monarch Typewriter Co., machines	129 58	
Baltimore "American," proposals	207 36	
Baltimore "Star," proposals	84 30	
Penniman & Browne, analysis	50 00	
Remington Co., ribbon	75	
Topographical Survey Co., blueprints	18 69	
Lucas Bros., stationery	2 50	
"German Correspondent," proposals	125 70	
Dr. Felber, service	7 50	
H. A. French, supplies	4 25	
Pfetzing & Connolly, hats	13.50	
"Daily Record," proposals	18 12	
American Ice Co., rent	50 00	
F. Ahern, horse	150 00	
Total expenditures		2,702 97
Surplus of credit		$17 03
Balance to surplus		17 03

HARBOR BOARD A—VI (31).

Appropriation, salaries $6,086 67

EXPENDITURES.

Harbor Engineer, Oscar F. Lackey	$4,166 66	
Clerk, James H. Irvin	1,500 00	
Messenger, Charles Arschurtz, Jr	417 35	
Total expenditures		6,084 01
Surplus of credit		$2 66
Balance to surplus, 1911		2 66

Appropriation, expenses		$500 00

EXPENDITURES.

Oaths	$5 25	
Postage	10 00	
Books for office	7 00	
Trip to Philadelphia (conference on city planning)	30 85	
Picture frames	3 50	
Telegrams and telephone	99	
Engineering papers	4 50	
Annual reports	146 80	
Typewriter	50	
Clerk's bond	6 25	
Expressage	75	
Meals	3 90	
Cigars for Board	70 25	
Lunch, Board meeting on boat	205 55	
Total expenditures		496 09
Surplus of credit		$3 91
Balance to surplus, 1911		3 91

CITY SURVEYOR, EXPENSES A—VI (31).

Transferred from Contingent Fund	$240 00

REVENUE.

Paid Jon. C. Rogers, agent, for rent of office	240 00

Streets.	Ordinances. No.	Year.	Jan. 1, 1911 Dr. Balance.	Jan. 1, 1911 Cr. Balance.	Expenditures in 1911.	Receipts in 1911.	Balance Dr.	Balance Cr.
Calvert street	34	1911	.....	.....	$150 18	.....	$150 18	.....
Gwynn's Falls Parkway	678	1911	.....	.....	2,910 22	.....	2,910 22	.....
Little Greene street	27	1911	.....	.....	27 23	.....	27 23	.....
Frederick road, widening	33	1911	.....	.....	22 58	.....	22 58	.....
Glover street	16	1911	.....	.....	107 65	.....	107 65	.....
Creamer alley	26	1911	.....	.....	237 45	.....	237 45	.....
Fortieth street, opening	180	1908	.....	$424 44	23,944 30	$7,494 20	16,025 66	.....
Belair road	679	1911	.....	.....	1,446 26	.....	1,146 26	.....
Taylor street	698	1911	.....	.....	1,996 89	.....	1,996 89	.....
Park Hill avenue	704	1911	.....	.....	385 10	.....	385 10	.....
Wyman avenue	695	1911	.....	.....	212 59	.....	212 59	.....
Beason street	93	1885	.....	1,446 77	.....	.....	.....	$1,446 77
West Falls lane	87	1898	$144 33	.....	.....	.....	144 33	.....
Patapsco street	39	1883	.....	715 14	.....	.....	.....	715 14
Race street	139	1875	.....	946 60	.....	.....	.....	946 60
Abell street	70	1902	251 19	.....	.....	.....	251 19	.....
Apple or Jew alley	99	1902	46 29	.....	.....	.....	46 29	.....
Alley, open, west side Garrett avenue	249	1905	.....	33 47	.....	.....	.....	33 47
Thirty-first street, opening	256	1905	1,961 09	.....	.....	.....	1,961 09	.....
Ostend and Stockholm streets	4	1905	.....	163 28	.....	.....	.....	163 28
Alley between Ensor and Hillen streets	228	1907	74 59	.....	.....	.....	74 59	.....
Old Joppa road	231	1907	113 89	.....	.....	.....	113 89	.....
Thirty-third street, opening	251	1907	5,032 94	.....	75 30	.....	5,108 24	.....
Eleventh street, opening	261	1907	1,296 27	.....	.....	.....	1,296 27	.....
Sterrett alley, opening	270	1907	638 98	.....	.....	.....	638 98	.....

Montebello avenue, opening	289	1907	1,285 99	.....	34 20	2,596 75	.....	1,276 56
Baker street, opening	277	1907	.....	727 69	.....	.....	.....	727 69
The Alameda	227	1908	796 22	.....	103 78	.....	900 00	.....
Windsor Mill road	125	1908	.....	110 72	10 00	.....	.....	1,100 72
Thirtieth street, opening	117	1908	812 64	.....	.....	1,770 19	.....	957 55
Kennedy avenue, opening	195	1908	.....	70 80	.....	.....	.....	70 80
Twenty-second street, opening	196	1908	869 73	.....	22,945 33	4,724 57	19,090 49	.....
Garrett avenue, opening	197	1908	405 64	.....	.....	246 00	159 64	.....
Rose street	241	1909	.....	1,415 20	3,754 17	2,400 00	.....	61 03
Smallwood street	270	1909	.....	607 54	8,405 51	1,099 25	6,698 72	.....
Hudson alley	266	1909	482 98	.....	713 37	600 00	596 35	.....
Oak street	386	1909	627 41	.....	43 34	.....	670 75	.....
Saratoga street, opening	397	1909	693 71	.....	59 15	5,486 00	.....	4,733 14
Slingluff avenue	357	1909	518 06	.....	.....	.....	518 06	.....
Huntingdon avenue	271	1909	644 72	.....	.....	4 00	640 72	.....
Seventh street, opening	305	1909	.....	26,861 01	26,861 01	.....	.....	.....
Keyworth avenue	418	1909	263 82	.....	1,852 00	805 00	1,310 82	.....
Courtney street	275	1909	246 23	.....	.....	.....	246 23	.....
Baltimore street	272	1909	3,420 64	.....	496 50	.....	3,917 14	.....
Dukeland street	286	1909	663 35	.....	34 20	1,086 00	.....	388 45
Homestead street	335	1909	702 59	.....	80 74	.....	783 33	.....
Homestead street	336	1909	653 12	.....	44 61	.....	697 73	.....
Friendship Place	349	1909	.....	570 74	.....	197 50	.....	768 24
Twenty-fifth street, opening	416	1909	2,464 77	.....	.....	.....	2,464 77	.....
Twenth-sixth street, opening	417	1909	348 51	.....	12 25	.....	360 76	.....
Thirty-fourth street	489	1910	1,446 18	.....	49 76	2,306 35	.....	810 41
Cokesbury avenue	274	1907	.....	993 65	.....	.....	.....	993 65
Twenty-seventh street, opening	536	1910	193 45	.....	208 79	.....	402 24	.....
Windsor Mill road	534	1910	532 15	.....	325 00	.....	857 15	.....
Twenty-sixth street, opening	537	1910	113 97	.....	407 52	.....	521 49	.....
Pratt street, widening	572	1910	550 23	.....	192 50	6,209 30	.....	5,466 57
Oak street	524	1910	600 99	.....	61 34	.....	662 33	.....
Baker street, opening	535	1910	967 20	.....	1,375 00	.....	2,342 20	.....
Merrymans lane, closing	543	1910	108 83	.....	60 84	.....	169 67	.....
Remington avenue, opening	605	1910	.....	.....	333 75	.....	333 75	.....
Dukeland street	624	1911	.....	.....	846 32	.....	846 32	.....
Ashburton street	669	1911	.....	.....	1,313 05	.....	1,313 05	.....

STREETS OPENED, WIDENED AND CLOSED BY CONDEMNATION A—VI (32)—*Concluded.*

Streets.	Ordinances. No.	Ordinances. Year.	Jan. 1, 1911. Dr. Balance.	Jan. 1, 1911. Cr. Balance.	Expenditures in 1911.	Receipts in 1911.	Balance Dr.	Balance Cr.
Water front street, opening	682	1911	.....	.....	$182 70	.....	$182 70	.....
Bonner road, opening	681	1911	.....	.....	404 10	.....	404 10	.....
Thames street, widening	689	1911	.....	.....	60 97	.....	60 97	.....
Henrietta street, closing	387	1909	.....	.....	28 47	.....	28 47	.....
			$29,972 70	$35,087 05	$102,516 02	$37,025 11	$80,036 63	$19,660 07
Balance December 31, 1910			5,114 35	.....	.....	.....	.....	.....
Excess expenditures over receipts in 1911			.....	.....	.....	65,490 91	.....	.....
Debit balances December 31, 1911			.....	.....	.....	.....	.....	60,376 56
			$35,087 05	$35,087 05	$102,516 02	$102,516 02	$80,036 63	$80,036 63
Debit balances carried forward, 1912			.....	.....	60,376 56	.....	.....	.....

RECEIVED FROM THE CONTINGENT FUND ACCOUNT, STREETS OPENED, WIDENED AND CLOSED BY CONDEMNATION A—VI (32).

Streets.	Ordinances.		Receipts 1911.	Balance Dr.
	No.	Year.		
Creamer alley	26	1911	$77 40	$77 40
Little Greene street	27	1911	68 10	68 10
Frederick avenue	33	1911	29 65	29 65
Milton avenue	.....	.....	41 40	41 40
Taylor street	698	1911	31 05	31 05
McPhail street	.....	.....	46 20	46 20
Garrison avenue	.....	.....	15 11	15 11

OPENING STREETS. A—VI (32).

Callow avenue, North to Newington	$734 51	
Kennedy avenue, Twenty-second to Curtain	649 29	
Fortieth street, University Parkway to Roland avenue	19,083 26	
Smallwood street, Saratoga to Franklin	7,422 71	
Huntingdon avenue, Twenty-fifth to Thirtieth	996 22	
Hudson alley, Twenty-fifth to Twenty-eighth	695 25	
Seventh street, Edmondson avenue to Westwood avenue	17,301 27	
Bentalou street, north to Lafayette avenue	9,582 13	
Twenty-second street, Jenkins lane east	20,000 00	
Total appropriation		$76,464 64

EXPENDITURES.

Frank Brown, Collector	$10,316 64	
Annex Loan Account	17,301 27	
Total expenditures		27,617 91
Balance carried forward to 1912		$48,846 73

UNCLAIMED DAMAGE FOR OPENING STREETS A—VI (32).

Received from City Register for opening Preston street	$15 00
Received from City Register	15 00
Balance carried forward to 1912	$30 00

WIDENING HARFORD ROAD A—VI (32).

Appropriation	$32,350 00

EXPENDITURES.

United Railways and Electric Company	$100 00	
Ellen G. Gorter	197 36	
John G. and Louis Maier	3,040 48	
William Erwin Bond	40 00	
Charles Homer	1,400 00	
Charles H. Knox	100 00	
John A. Graham	650 00	
Title Guarantee Trust Company	1,000 00	
Charles Friedel	48 00	
Baltimore and Harford Turnpike Company	1,303 86	
Torrence D. Overcash	14 22	
Derby A. Lynd	60 00	
Samuel Register	50 00	
E. Mitchell Sterberand	10 00	
Stephen C. Little	8 25	
Total expenditures		8,022 17
Balance carried forward to 1912		$24,327 83

BURNT DISTRICT BENEFIT ASSESSMENT FUND A—VI (32).

RECEIPTS.

Lombard street	$684 96	
German street	85 20	
Light street, Pratt and Lee	3,679 42	
Light street, Baltimore to Pratt	839 80	
Total receipts		$5,289 38

EXPENDITURES.

J. H. Fisher	15 90
Balance carried forward to 1912	$5,273 48

THIRTY-NINTH STREET OPENING A—VI (32).

Appropriation	$5,000 00
Paid University Parkway Company	5,000 00

STREETS PAVED AND PAVED BY ASSESSMENT A—VI (33).

Streets.	Ordinances. No.	Ordinances. Year.	Jan. 1, 1911. Dr. Balance.	Jan. 1, 1911. Cr. Balance.	Expenditures in 1911.	Receipts in 1911.	Balance Dr.	Balance Cr.
Port street	352	1909		$80 54				$80 54
Rose street	178	1908		3,168 27	$3,168 27			
Macadamizing Duvall, Roslyn and Piedmont avenues					2,500 00	$2,500 00		
				$3,248 81	$5,668 27	$2,500 00		$80 54
Credit balance December 31, 1910			$3,248 81					
Excess expenditures over receipts						3,168 27		
Credit balance December 31, 1911							$80 54	
			$3,248 81	$3,248 81	$5,668 27	$5,668 27	$80 54	$80 54
				$80 54				
Credit balance December 31, 1911								
Received from State Roads Commission			$2,500 00					

THIRTY-FIFTH STREET GUTTER AND CURB A—VI (33).

Transferred from Contingent Fund	$390 00

EXPENDITURES.

Paid Thomas Mullan	390 00

PAVING SUNDRY STREETS 1910 A—VI (33).

Balance brought forward from 1910	$18,612 42

EXPENDITURES.

Carey street paving	$12,349 43	
Twenty-fourth street paving	6,148 18	
Total expenditures		18,497 61
Surplus of credit		$114 81
Balance to surplus, 1911		114 81

PAVING LAURENS STREET A—VI (33).

Appropriation	$5,000 00
Expended	3,670 68
Surplus of credit	$1,329 32
Balance to surplus, 1911	1,329 32

PAVING ANNEX, ANNEX 1954 LOAN A—VI (33).

RECEIPTS.

Brought forward from 1910		$67,522 27
Benefits from Catherine street	$547 13	
Benefits from Carroll street	887 89	
Benefits from Lombard street	195 24	
Benefits from Lombard street, Garrison avenue to Catherine	662 20	
Benefits from Lombard street, Catherine street to Wilkens avenue	135 52	
Benefits from Millington avenue	398 49	
Benefits from Bentalou street	9,582 13	
Benefits from Callow avenue	734 51	
Benefits from Massachusetts avenue	328 59	
Benefits from McHenry street	326 25	
Benefits from United Railways and Electric Company	427 05	
Old material, Poplar Grove avenue	62 50	
Opening Seventh street	44,162 28	
Total benefits, etc.		58,450 18
Amount carried forward		$125,972 45

Amount brought forward			$125,972 45

EXPENDITURES.

Salaries, charged to expenses:

Chief Engineer, August E. Christhilf, 11.5 months	$2,395 80	
Assistant Engineer, William G. Sucro, 12 months	1,800 00	
Rodman, John Brannan, 12 months	780 00	
Inspector, Michael Fallon, 12 months	1,080 00	
Inspector, John J. Silk, 1.79 months	161 13	
		$6,216 93
Thirty-second St., Charles St. to St. Paul St., acquiring street bed		106 50
Thirty-fourth St., Charles St. to St. Paul St., acquiring street bed		105 50
Thirty-fifth St., Charles St. to St. Paul St., acquiring street bed		105 50
Garrison, Berwyn and Liberty Heights Aves., condemnation		252 88

Cokesbury Ave. paving. Final estimate:

1,966 cubic yards grading at 50 cents,	$983 00	
1,237.9 square yards vitrified brick paving on six-inch concrete base, at $1.90,	2,352 01	
601.7 linear feet six-inch concrete curb and circles, at 70 cents	421 19	
90 linear feet old curb reset as headers, at 30 cents	27 00	
85.3 square yards cobble repaving, at 60 cents	51 18	
	$3,834 38	
Advertising	63 08	
		3,897 46

Keyworth Ave. paving, Reisterstown road to Park Heights Ave.:

Advertising	$67 05	
Sewerage Commission, building inlets,	17 71	
To amount of current estimate, as shown by Estimate No. 1	1,093 68	
		1,178 44
Charles St. condemnation		30 30
Annual reports		179 82
Blue printing		4 16
Miscellaneous articles, stationery		23 00
Miscellaneous construction and repairs		85 57
Recording deeds		37 25
Amounts carried forward	$12,223 31	$125,972 45

Amounts brought forward		$12,223 31	$125,972 45
Poplar Grove St. paving, Edmondson Ave. to North Ave.:			
To amount of current estimates, as shown by Estimate No. 14	$49,626 69		
Less amount paid in 1910	3,443 57		
	$46,183 12		
Extra work removing mud from roadbed.	366 35		
Removing fences	4 95		
Cutting headers	94 63		
Taking out asphalt, etc	42 08		
Bell ramming at Calverton road	19 18		
Hauling headers and cobble	56 73		
Removing bad ground and setting headers	648 24		
Ramming ditches, refilling bad ground.	136 36		
Use of roller, macadamizing, barring up stone, concrete, hauling, etc	377 96		
Consolidated Gas Company, removing lamp	3 72		
City Engineer:			
Pipe line and inlets at Mosher St	320 36		
Pipe line and inlets at Presbury St	428 64		
E. T. Foreman, hauling	16 16		
		48,698 48	
Bentalou St. opening, North Ave. to Lafayette Ave		2 00	
Poplar Grove St. Bridge over right-of-way, Western Maryland Tidewater Railway, final estimate:			
1,850 cubic yards excavation, at $1.32	$2,442 00		
2,226.44 cubic yards concrete in abutments at $7.85	17,477 55		
Steel work, railings, etc	8,700 00		
Concrete slabs, curbs, casing, etc	5,000 00		
	$33,619 55		
Less amount paid in 1910	12,730 64		
	$20,888 91		
Extra work:			
Centering headwalls	12 64		
Re-arrangement of electrical ducts	125 00		
Extra material in girders, bending iron	100 00		
		21,126 55	
Morris Ave. closing, Westwood Ave. to Hilton St.		37 80	
Poplar Grove St. condemnation, Edmondson Ave. to Westwood Ave		5 98	
Deficiency in receipts sale of Annex stock		$428 75	
Premium on sale Annex loan stock in 1908		613 15	
Total expenditures			83,136 02
Surplus of credit			$42,836 43
Carried forward to 1912			42,836 43

FOOTWAY CROSSINGS A—VI (33).

Appropriation		$5,000 00
EXPENDITURES.		
Labor, as per payrolls	$1,523 82	
Vitrified block, 12,000 block	263 50	
Flag stone, 293.33 square yards	102 66	
Paving sand, 58 cubic yards	41 30	
Gravel, 4 cubic yards	4 00	
Hauling	172 38	
Total expenditures		2,107 66
Surplus of credit		$2,892 34
Balance to surplus, 1911		2,892 34

PAVING AND REPAIRING CROSS STREETS AND IN FRONT OF CITY PROPERTY A—VI (33).

Appropriation		$45,000 00
Wages returned		166 58
Total credits		$45,166 58
EXPENDITURES.		
Labor, as per payrolls	$23,601 79	
Belgian blocks, 8,172 blocks	514 20	
Vitrified blocks, 14,886 blocks	288 79	
Asphalt blocks—29,500 blocks, 4x5x12 inches; 35,000 blocks, 3x5x12 inches; 5,835 blocks, 4x4x12 inches; 100 blocks, hexagon; 70 blocks, square	4,726 98	
Cement, 2,003 bags	573 31	
Paving sand, 1,632.5 cubic yards	1,507 45	
Screened sand, 74.5 cubic yards	89 40	
Gravel, 393.5 cubic yards	504 06	
Crushed stone, gabbro, 136.25 cubic yards	315 00	
Stone dust, gabbro, 42.42 cubic yards	71 45	
Crushed stone, gneiss, 6.78 cubic yards	12 48	
Stone dust, gneiss, 3.57 cubic yards	4 07	
Cobble stone, 10.5 perches	20 48	
Excavating under tracks of United Railway	107 81	
Hauling	965 33	
Sheet asphalt repairs	1,399 74	
Flag stone, 1,348.67 square yards	471 98	
Adjusting manholes	34 10	
Repairs to concrete mixer	25 10	
Rent for lot	35 00	
Inspection of sheet asphalt repairs	29 04	
Repairs to tar boiler	10 48	
Coal, George's Creek, 4 tons	17 40	
Lumber	72 81	
Advertising	6 93	
Brick lifters and clamps, ½ dozen	14 50	
Track torches, 10 torches	7 50	
Hose, 167 feet, ¾ inch	20 00	
Amounts carried forward	$35,447 18	$45,166 58

Amounts brought forward	$35,447 18	$45,166 58
Batteries, 1 dozen	5 93	
Gasoline, 45 gallons	4 08	
Miscellaneous	9 83	
Sewer pipe, 10 feet, 8 inches	1 38	
Castings, ½ dozen	4 04	
Paving Patuxent street	2,601 21	
Concrete footway	287 44	
Paving Rose street	302 08	
Paving Hollins street	139 22	
Paving Luzerne street	145 98	
Paving Courtland street	283 31	
Paving Hargrove alley	196 36	
Paving Linwood avenue	338 94	
Paving intersection Cleveland and Carey streets	774 98	
Repairing at Charles and Twenty-sixth streets	7 58	
Tire tube, 1 tube	5 10	
Top soil and sodding, Auchentoroly Terrace	1,155 41	
Brick, 11,959	143 51	
Sand, 24⅛ cubic yards	19 30	
Cement, 7-7-37 bags	2 91	
Pipe, terra-cotta, 160 feet, 3 inches	8 00	
Pipe, terra-cotta, 206 feet, 4 inches	12 89	
Seeds, Druid Hill Park lawn, 11½ pounds	2 30	
Paving concrete footway in front of No. 86 School, Payson and Mulberry streets (John S. O'Dell)	390 00	
Repairing concrete footway at No. 86 School, Payson and Mulberry streets (John S. O'Dell)	24 00	
Paving concrete footway in front of Northwestern Police Station, Pennsylvania avenue and Lambert street (Max B. Muller)	169 73	
Paving concrete footway on south side University Parkway and Stony Run Bridge (Hieatzman Bros.)	50 00	
Paving concrete footway in front and side No. 92 School, Charles and Ostend streets (United Cement and Contracting Co.)	452 24	
Paving concrete footway on north side Exchange Place, between Commerce and Gay streets (Max B. Muller)	118 00	
Paving concrete footway in front of Southern Police Station, Ostend and Patapsco streets (John S. O'Dell)	128 40	
Paving concrete footway in front of No. 60 School, Francis street and Clifton avenue (Max B. Muller)	236 50	
Paving concrete footway on north and south sides McMechen street and Mount Royal avenue (George W. Voigt)	121 99	
Paving concrete footway in front and rear of No. No. 2 School, Stiles near Gough street (Max B. Muller)	495 00	
Amounts carried forward	$44,084 82	$45,166 58

Amount brought forward	$44,084 82	$45,166 58
Hauling 14,000 old brick from Charles and Ostend streets to City Yard (United Cement and Contracting Co.)	28 00	
Hauling 4,404 old brick from Francis street and Clifton avenue to City Yard (E. T. Foreman)	8 80	
Hauling 3,500 old brick from Ostend and Patapsco streets to City Yard (John S. O'Dell)	7 00	
Labor	854 23	
Total expenditures		$44,982 85
Surplus of credit		$183 73
Balance to surplus, 1911		183 73

REPAIRS TO ROADS, STREETS, ETC., A—VI (33).

Appropriation	$267,650 00
Wages returned	129 69
Total credits	$267,779 69

EXPENDITURES.

Labor as per payrolls	$141,140 57	
Asphalt blocks—4x5x12 inches, 197,300 blocks; 4x4x12 inches, 13,975 blocks; 3x5x12 inches, 38,750 blocks	17,238 13	
Vitrified blocks, 142,887 blocks	2,804 83	
Belgian blocks, 20,327 blocks	1,243 39	
Cement, 8,022 bags	2,205 05	
H. D. Gutters, 10,384 feet, 3 inches	2,906 33	
Sheet asphalt repairs	26,551 98	
Flag stone, 894 square feet	313 07	
Curb, 102 linear feet	66 30	
Crushed stone, gabbro, 3,932.307 cubic yards	9,142 93	
Stone dust, gabbro, 503.807 cubic yards	840 37	
Tools and hardware, etc	1,024 18	
Steel and iron	515 86	
Coal oil and gasoline	174 33	
Paints, oils and brushes	144 24	
Road gravel, 427.90 cubic yards	513 48	
Advertising	222 44	
Filler, 14,362 gallons	1,475 73	
Filler, "Puritan Brand," 19,765 pounds	197 65	
Cobble stone, 154.38 perches	281 11	
Blacksmithing and new vehicles	230 90	
Crushed stone, gneiss, 194.447 cubic yards	348 07	
Coal	307 60	
Hauling,	12,607 72	
Lumber	2,321 52	
Pipe	59 95	
Paving sand, 11,920.85 cubic yards	9,672 45	
Screened sand, 449.00 cubic yards	433 80	
Gravel, 1,435.00 cubic yards	1,659 36	
Hire of horse and buggy	27 00	
Amounts carried forward	$236,670 34	$267,779 69

Amounts brought forward	$236,670 34	$267,779 69
Rent for lot	49 00	
Road roller, one five-ton roller	1,800 00	
Paving Lanvale street	13,746 32	
Paving Calvert street	8,847 77	
Paving Guilford avenue	2,447 57	
Paving intersection Dukeland, Glenolden and Claremont avenues	209 00	
Paving Wilkens avenue	14 22	
Inspection of sheet asphalt repairs	105 95	
Inspection of bitumen	399 68	
Repairs to Charles and Twenty-second streets	21 07	
Repairs to Oak and Twenty-second streets	15 43	
Repairs to Madison street	5 74	
Repairs to Williams street	20 16	
Building fence at Dead Run Bridge	62 48	
Paving blocks, 8,000 blocks	96 00	
Repairs to Clifton avenue and Fifteenth street	41 10	
Building fence on Franklin road	150 00	
Refund in paving private alleys	115 15	
Insurance on road roller	88 50	
Adjusting manholes	54 67	
Setting concrete curb	189 10	
Repairs to Stag alley	5 32	
Freight and demurrage	262 54	
Removing lamps	16 45	
Hire of road roller	168 75	
Miscellaneous	18 36	
Street lines and plats	16 00	
Repairs to road roller	596 97	
Repairs to concrete mixer	126 66	
Repairs to tar boiler	39 53	
Removing gutters	73 63	
Hire of plow	7 00	
Curb iron	19 12	
Sharpening tools	25 82	
Tar kettle	11 55	
Decorating booth for food show	160 00	
Shot for rattler	79 92	
Current for rattler	6 61	
Repairs to rattler	8 09	
Tape lines	16 50	
Mounting map	10 60	
Toll	19 93	
Bull pinion one "T"	17 50	
Survey stakes	12 50	
Cross ties or earth retaining embankments	12 50	
Hire of four-mule team	8 00	
Red flags	9 00	
Removing night soil	2 50	
Thermometer (1)	1 25	
Levels	1 00	
Trip to Havre-de-Grace, Md	1 65	
Castings	5 75	
Blue printing	3 20	
Storage and supplies for automobile	107 14	
Tires and tubes for automobile	90 97	
Amounts carried forward	$267,121 56	$267,779 69

Amounts brought forward	$267,121 56	$267,779 69
Tire pump and shock absorbers for automobile	50 00	
Repairs and supplies to automobile	85 63	
Brick, 7,139	85 67	
Sand, 26 33/80 cubic yards	21 13	
Cement, 20 5/37 bags	7 45	
Pipe, terra cotta, 50 feet, 3 inches	2 50	
Resetting inlet head northwest corner Eager and Aisquith streets, Sewerage Commission	2 29	
Labor	403 46	
Total expenditures		267,779 69

GRADE ESTABLISHMENTS A—VI (33).

Appropriation	$6,000 00
Received from other sources	637 49
Total credits	$6,637 49

EXPENDITURES.

W. O. Atwood, City Surveyor	$4,048 00	
Advertising	549 97	
Rebate, Hilton Land Co.	80	
Rebate, Consolidated Gas, Electric Light and Power Co.	52	
Rebate, Consolidated Gas, Electric Light and Power Co.	12 48	
Total expenditures		4,611 77
Surplus of credit		$2,025 72
Balance to surplus, 1911		2,025 72

PAVING PRIVATE ALLEYS A—VI (33)

Appropriation	$5,000 00
Wages returned	87
Received from property owners	4,776 45
Total credits	$9,777 32

EXPENDITURES.

Labor, as per payrolls	$1,576 61	
Asphalt blocks, 5,850 blocks	117 00	
Advertising	132 09	
Refunds	67 07	
H. D. gutters, 64 feet, 10 inches	17 50	
Paving sand, 84 cubic yards	85 10	
Screened sand, 4 cubic yards	4 00	
Gravel, 115 cubic yards	127 96	
Rubber boots	20 55	
Hauling	10 00	
Cement, 470 bags	143 50	
Amounts carried forward	$2,301 38	$9,777 32

Amounts brought forward	$2,301 38	$9,777 32
Sewer pipes	52 32	
Lumber	36 74	
Frames and gratings	21 18	
Plates, iron	9 00	
Lowering water stop	33 50	
Freight on Byerley asphalt	4 88	
Total expenditures		2,459 00
Surplus of credit		$7,318 32
Balance carried forward to 1912		7,318 32

EMERGENCY FUND, CITY ENGINEER'S DEPARTMENT A—VI (33)

Appropriation	$20,000 00

EXPENDITURES.

Labor, as per payrolls	$8,896 68	
Vitrified paving blocks, 56,086 blocks	1,088 07	
Automobile	1,500 00	
Crushed stone, gabbro, 472,165 cubic yards	1,011 80	
Crushed stone, gneiss, 98.70 cubic yards	155 06	
Cobble stone, 89.67 perches	173 95	
Paving sand, 618.5 cubic yards	485 50	
Screened sand, 55.0 cubic yards	56 40	
Gravel, 358.0 cubic yards	400 14	
Belgian blocks, 75,600 blocks	4,762 80	
Cement, 1,662 bags	470 37	
Filler, "Puritan Brand," 5,650 pounds	56 50	
Filler, "Fairfield," 525 gallons	47 25	
Asphalt blocks, 2,370 blocks	165 90	
Lumber	185 07	
Hauling	368 39	
Repairs to concrete mixer	32 69	
Coal, George's Creek, 7 tons	30 45	
Advertising	27 51	
Wire nails, 10 kegs	20 40	
Brick lifters and clamps, ½ dozen	14 50	
Water hose, 67 feet, ¾ inch	10 00	
Rubber belting	4 80	
Dry cell batteries, ½ dozen	2 70	
Lawn roller	2 50	
Pipe	2 06	
Granolithic, 1 ton	2 00	
Gasoline, 15 gallons	1 28	
Developing photos	1 20	
Total expenditures		19,975 97
Surplus of credit		$24 03
Balance to surplus, 1911		24 03

PAVING PRIVATE FOOTWAYS A—VI (33).

Amount of assessments received	$654 11

EXPENDITURES.

Brick, 8,110	$97 32	
Sand, 13⅜ cubic yards	10 70	
Cement, 5 3/37 bags	1 88	
Pipe, terra-cotta, 56 feet, 4-inch	3 51	
Pipe, terra-cotta, 10 feet, 3-inch	50	
Pipe, terra-cotta, 2 feet, 4-inch, Y	55	
Iron plates, 23 feet, 12-inch	12 80	
Labor	181 57	
Total expenditures		308 83
Surplus of credit		$345 28
Paid into City Treasury		345 28

PRIVATE PAVING AND INSPECTION A—VI (33).

Paid for material and labor for work done for private persons and corporations, 1911	$89,365 14
Debit balance from 1910	6,069 76
Total expenditures to January 1, 1912	$95,434 90
Received during 1911	83,949 95
Debit balance carried forward to 1912	$11,484 95

LAY OUT AND IMPROVE PARK TERRACE FROM PARK AVENUE TO ROBERT AVENUE A—VI (33).

(Ordinance No. 544, Approved June 9th, 1910.)

Appropriation	$8,000 00
Expended	6,049 33
Surplus of credit	$1,950 67
Balance to surplus, 1911	1,950 67

PAVE, GRADE AND CURB LUZERNE STREET FROM FEDERAL STREET TO BALTIMORE CEMETERY A—VI (33).

(Ordinance No. 528, Approved June 4th, 1910.)

Appropriation	$2,500 00
Expended	2,500 00

REGRADING AND REPAVING MOSHER STREET FROM MADISON AVENUE TO McCULLOH STREET A—VI (33).

(Ordinance No. 492, Approved June 6th, 1910.)

Appropriation	$3,500 00
Expended	5 38
Surplus of credit	$3,494 62
Balance carried forward to 1912	3,494 62

REGRADING, PAVING AND CURBING HOLLINS STREET FROM GARRISON LANE TO CATHERINE STREET A—VI (33).

(Ordinance No. 544, Approved June 13th, 1910.)

Appropriation	$4,600 00
Cash from property owners	1,415 00
Total credits	$6,015 00
Expended	6,015 00

GRADING, PAVING AND CURBING SUNDRY STREETS A—VI (33).

Appropriation $171,305 00

EXPENDITURES.

Grade, curb and pave West street, from Light street to Riverside avenue	$5 39	
Grade, curb and pave Patuxent street, from Fayette street to Philadelphia road	1,257 42	
Grade, curb and pave Mulberry street, from Payson to Pulaski streets	257 28	
Grade, curb and pave Pleasant street, from Cathedral street to Little Sharp north of Pleasant street	1,327 04	
Grade, curb and pave north side O'Donnell street, from Chesapeake to Canton streets	13,613 93	
Grade, curb and pave High street, from Fayette to Lexington streets	3,501 32	
Grade, curb and pave Lombard street, from Hopkins Place to Hanover street	7,242 21	
Grade, curb and pave Fulton avenue, from Wilkens avenue to Frederick avenue	19,524 75	
Grade, curb and pave Barre street, from Light to Charles streets	6,328 72	
Grade, curb and pave Carrollton avenue, from Lanvale street to Harlem avenue	3,494 58	
Grade, curb and pave Oliver street, from Caroline street to Broadway	8,692 69	
Grade, curb and pave Aisquith street, from Ashland avenue to Chase street	8,095 85	
Grade, curb and pave Edmondson avenue, from P., B. & W. Ry. to Fulton avenue	23,287 93	
Grade and repave Hamburg street, from Plum alley to Howard street	1,197 10	
Grade and repave Hamburg street, from Eutaw street to China alley	1,429 89	
Grade, pave and curb Fremont avenue, from Baltimore to Pratt streets	19,328 81	
Grade, curb and pave Welcome alley, from Charles to Hanover streets	1,545 76	
Grade, curb and pave Concord street, from Lombard to Pratt streets	3,941 92	
Grade and repave Eutaw street, from Fremont avenue to Henrietta street	9,678 91	
Grade and repave Howard street, from Cross to Henrietta streets	7,885 62	
Amounts carried forward	$141,637 12	$171,305 00

Amounts brought forward	$141,637 12	$171,305 00
Grade, pave and curb Foster alley, from Mosher street to Lafayette avenue	1,260 18	
Grade, curb and pave Brunt street, from Mosher to McMechen streets	1,994 39	
Total expenditures		144,891 69
Surplus of credit		$26,413 31
Balance carried forward to 1912		26,413 31

SALE OF OLD MATERIAL, CITY ENGINEER'S DEPARTMENT A—VI (33).

Received from sale of old material	$3,249 74
Refund	165 05
Total receipts	$3,084 69
Paid into City Treasury	3,084 69

PAVING CANTON STREET FROM FAIRMOUNT AVENUE TO FAYETTE STREET A—VI (33).

(Ordinance No. 420, Approved December 10th, 1909.)

Cash from E. J Storck	$1,500 00
Cash from W. L. Westphal	1,500 00
Total receipts	$3,000 00
Expended	65 21
Surplus of credit	$2,934 79
Balance carried forward to 1912	2,934 79

PAVING COMMISSION—PAVING STREETS—A VI (33).

Appropriation $500,000 00

EXPENDITURES.

R. Keith Compton, Chairman	$1,354 17		
Charles A. Edel, Secretary	235 48		
S. Robert Martin, Stenographer	400 00		
Charles A. Edel, Draftsman	207 00		
A. C. Knight, Draftsman	12 00		
F. K. Duncan, Assistant Engineer	125 00		
R. M. Cooksey, Assistant Engineer	125 00		
J. W. Ogier, Draftsman	83 34		
George E. Hilton, Draftsman	77 95		
A. C. Knight, Instrument man	64 43		
George E. Finck, Laborer	42 00		
J. E. Bacon, Laborer	46 00		
C. E. Bennett, Inspector	87 00		
George P. Camalier, Inspector	30 00		
W. H. Doe, Inspector	26 00		
Total		$2,915 37	
Amounts carried forward		$2,915 37	$500,000 00

Amounts brought forward		$2,915 37	$500,000 00
Incidentals:			
Maps and mounting same	$27 95		
Underwood Typewriter Co., machine	83 03		
Supplies	5 72		
Automobile Touring Co., hire of machine	72 00		
Printing, stationery, office furniture and supplies	136 32		
Stamps, postals and car tickets	113 25		
Oaths	75		
Employees' bond	12 50		
Expenses of inspection trips	183 51		
City Engineer's Department, services	170 96		
Advertising:			
Engineering News	17 40		
Municipal Journal	14 00		
E. Raine	70 47		
Chas. C. Fulton & Co	115 99		
Total		1,023 85	
Grand total			3,939 22
Surplus of credit			$496,060 78
Balance carried forward to 1912			496,060 78

STREET CLEANING AND COLLECTION OF ASHES AND GARBAGE —COMMISSIONER OF STREET CLEANING—A—VI (34).

CARTS AND MEN.

Appropriation		$135,720 00
Wages returned		18 00
Total credits		$135,738 00

EXPENDITURES.

January	$13,137 00	
February	9,429 00	
March	9,450 50	
April	9,301 50	
May	11,554 50	
June	9,460 50	
July	9,543 00	
August	11,943 00	
September	9,590 25	
October	12,174 00	
November	10,097 00	
December	17,063 78	
Total expenditures		132,744 03
Surplus of credit		$2,993 97
Balance of surplus, 1911		2,993 97

NOTE—135 street carts removed 320,893 loads street dirt, sand, snow and ice.

SWEEPERS AND SCRAPERS.

Appropriation	$171,912 00
Wages returned	1 00
Total credits	$171,913 00

EXPENDITURES.

January	$15,491 50	
February	12,276 00	
March	12,402 00	
April	12,536 00	
May	15,739 00	
June	12,846 00	
July	13,165 88	
August	16,449 63	
September	12,919 13	
October	16,478 00	
November	13,288 13	
December	16,955 12	
Total expenditures		170,546 39
Surplus of credit		$1,366 61
Balance to surplus, 1911		1,366 61

COLLECTION OF GARBAGE, ASHES, ETC.

Appropriation	$210,000 00

EXPENDITURES.

Payrolls	$151,458 54	
Wm. Hopps Grain & Hay Co., feed	23,789 04	
F. Migenhardt, feed	11,275 73	
M. J. McDermott, shoeing	1,178 25	
R. Burgess, shoeing	986 25	
Geo. S. McLaughlin, shoeing	1,044 50	
Jas. E. Gibson, shoeing	402 75	
E. J. Diggs, rent	1,350 00	
Muth Bros., drugs	785 64	
Consolidated Gas, Electric Light and Power Co., light service	756 09	
George Schmink, harness	1,296 45	
Bolton Bros., supplies	1,417 85	
R. W. Norris & Sons, supplies	1,131 38	
Piet-Robertson-Rainey Co., supplies	1,065 55	
Samuel A Rice, horses	5,600 00	
Johns Hopkins, rent	250 08	
Wm. D. Gill & Son, lumber	191 96	
E. A. & B. M. Watts, coal	170 90	
C. G. McKaig, collars	146 25	
J. O. Stafford, salt	213 30	
Dr. Felber, services	338 55	
Dr. Byrnes, services	175 00	
Louis Henig Co., harness dressing	82 50	
Superintendent's small bills, shoeing	194 05	
E. Scott Payne Co., supplies	1,950 75	
Francis T. Lynch, carts	1,332 90	
Reisterstown Turnpike Co., toll	46 95	
Mrs. Nora O'Neill, rent	30 00	
Amounts carried forward	$208,661 21	$210,000 00

Amounts brought forward	$208,661 21	$210,000 00
J. H. Klohr, oat straw	72 00	
Parke, Davis Co., drugs	24 00	
Rittler Box Co., shavings	18 00	
F. J. Hesse, grinding tools	4 40	
E. T. Foreman, hauling stone	58 40	
W. E. Anderson, stone	48 00	
William Chaney, shoeing	10 20	
Baltimore Brick Co., dump rent	100 00	
William Schluderberg, dump rent	80 00	
A. M. Webb, notary fees	64 60	
R. B. Mason, repairing stable	493 62	
Heller Drug Co., drugs	78 27	
National Towel Co., services	11 25	
Fowler Towel Co., services	3 75	
Dr. Stewart, services	9 00	
J. O. McGonigle, thermometers	3 00	
Fidelity and Deposit Co., bonds	4 00	
Penniman & Browne, services	5 00	
J. T. Davis, littering stable	5 00	
J. F. W. Dorman, stencils	3 00	
Winans Co., rent	100 00	
Carey Machine Co., dies, etc	2 90	
Maryland Society for the Prevention of Cruelty to Animals, services	6 00	
Total expenditures		209,865 60
Surplus of credit		$134 40
Balance to surplus, 1911		134 40

NOTE—162,159 cubic yards garbage and 443,764 cubic yards ashes collected and removed by 197 carts.

SWEEPING MACHINES, SPRINKLERS, ETC.

Appropriation		$60,284 00
EXPENDITURES.		
Payrolls	$26,346 74	
F. Beck & Co., brooms	9,673 75	
J. Lacy & Co., supplies	1,038 65	
Consolidated Gas, Electric Light and Power Co., lights	78 09	
James Hittle, repairs	125 90	
Mt. Vernon Motor Co	511 61	
R. W. Norris & Sons	100 00	
W. H. Hopps Grain and Hay Co., feed	5,880 00	
Samuel A. Rice, horses	3,950 00	
H. A. French & Co, motor cycle, etc	644 43	
E. J. Codd Co., sundries	11 58	
Bolton Bros., supplies	269 90	
Piet-Robertson-Rainey Co., supplies	623 94	
Wansch & Dobos, repairs	411 00	
William Gill & Son, lumber	760 48	
George P. Thomas, gloves, etc	59 75	
Liberty Brass Co., wheels	21 00	
Murrill-Keizer Co., repairs	22 54	
Amounts carried forward	$50,529 36	$60,284 00

Amounts brought forward	$50,529 36	$60,284 00
Kingsbury-Samuel Electric Co., supplies	30 45	
Kindling Machinery Co., squeeges, etc	4,258 37	
N. Enameling Co., cans	275 00	
F. A. Lynch, carts	355 00	
F. Magenhardt, feed	1,998 50	
Central Stables, horses	1,437 50	
American Ice Co., horses	1,150 00	
E. A. & B. M. Watts, coal	9 00	
Standard Motor Co., supplies	103 00	
W. H. Stevens, repairs	10 40	
Toland & Son, repairs	31 80	
New York Clothing House, uniforms	4 80	
H. P. McElroy, repairs to buggy	4 37	
Maryland Rubber Co., hose	18 60	
J. A. Limmerick Co., badges	9 50	
W. G. Wetherall, iron	8 97	
Arundel Sand and Gravel Co., gravel	8 40	
Total expenditures		60,243 02
Surplus of credit		$40 98
Balance to surplus, 1911		40 98

REMOVAL OF WASTE.

Appropriation		$25,000 00
EXPENDITURES.		
January—Arundel Sand and Gravel Co	$2,722 11	
February—Arundel Sand and Gravel Co	3,520 36	
March—Arundel Sand and Gravel Co	2,580 13	
April—Arundel Sand and Gravel Co	2,452 41	
May—Arundel Sand and Gravel Co	1,897 51	
June—Arundel Sand and Gravel Co	1,549 38	
July—Arundel Sand and Gravel Co	1,502 88	
August—Arundel Sand and Gravel Co	1,133 36	
September—Arundel Sand and Gravel Co	1,258 91	
October—Arundel Sand and Gravel Co	1,328 66	
November—Arundel Sand and Gravel Co	1,333 93	
December—Arundel Sand and Gravel Co	3,459 91	
Total expenditures		24,739 55
Surplus of credit		$260 45
Balance to surplus, 1911		260 45

LAYING DUST AND PRESERVING MACADAM ROADS.

Appropriation		$10,000 00
EXPENDITURES.		
P. Flanigan & Sons, sprinkling roads	$3,465 58	
Headley Good Roads Co., oil	4,024 56	
Standard Oil Co., oil	721 19	
Total expenditures		8,211 33
Surplus of credit		$1,788 67
Balance to surplus, 1911		1,788 67

DESTRUCTION OF WEEDS AND GRASS.

Appropriation		$2,000 00
EXPENDITURES.		
July—Thomsen Chemical Co	$215 20	
August—Thomsen Chemical Co	325 90	
September—Thomsen Chemical Co	278 28	
December—Thomsen Chemical Co	497 95	
Total expenditures		1,317 33
Surplus of credit		$682 67
Balance to surplus, 1911		682 67

REMOVAL OF GARBAGE.

Appropriation		$62,500 00
EXPENDITURES.		
Southern Product Co., removal of garbage by scows for year 1911	$62,000 00	
Spring Garden and Wharf and Land Co., wharf space	500 00	
Total expenditures		62,500 00

TOOLS AND REPAIRS.

Appropriation		$8,085 00
EXPENDITURES.		
Baltimore Brick Co., rent of dump	$10 00	
Goodyear Rubber Tire Co., rubber tire	19 00	
John H. Short & Son, supplies	12 16	
E. Scott Payne Co., supplies	544 12	
Liberty Brass Co., brass casting	48 00	
Carl Spoerer Sons Co., repairs to carriage	38 75	
W. D. Gill & Sons, lumber	3 30	
Piet-Robertson-Rainey Co., supplies	96 54	
James J. Lacey Co., castings	200 50	
Toland & Bro., saws	1 50	
George P. Thomas, Jr., rubber goods	1 50	
J. J. Haines Co., handles	79 20	
J. J. Limerick Co., badges	28 55	
Dr. J. B. Byrnes, services	25 00	
Maryland Rubber Co., rubber goods	11 25	
Fred. J. Hesse, knives	17 10	
J. T. Nicholson, supplies	121 95	
M. Corkran, repairs to wagon	3 00	
J. F. W. Dorman, stamp	75	
L. R. Wilhelm, repairs to wagon	1 25	
H. A. French, chain	11 45	
Charles T. Mitchell, supplies	114 03	
Peace & Peace, tank	65 00	
Hy. Bach, supplies	36 40	
Maryland Wagon Works, wagon	34 00	
J. H. F. Hahn, badges	4 50	
Amounts carried forward	$1,528 80	$8,085 00

Amounts brought forward	$1,528 80	$8,085 00
Murrill & Keyser, castings	2 13	
R. Burgess, shoeing	80 00	
George T. McLaughlin, shoeing	87 00	
Fred. Beck & Co., brooms	4,740 15	
Bolton Bros., supplies	730 51	
S. Malkin, rent of shed	300 00	
John E. Gist, rent of shed	18 00	
J. J. Lease, rent of shed	18 00	
M. Connolly, rent of shed	36 00	
Laura A. Magness, rent of section house	240 00	
John Dunn, rent of shed	36 00	
John T. Brady, rent of shed	36 00	
Mary Nolan, rent of shed	24 00	
Nora O'Neill, rent of shed	12 00	
R. J. Hefferan, rent of shed	36 00	
Wm. A. Larkins, rent of shed	24 00	
Total expenditures		7,948 59
Surplus of credit		$136 41
Balance to surplus, 1911		136 41

BALTIMORE SANITARY CONTRACTING CO.

Appropriation	$61,050 00
Paid Baltimore Sanitary Contracting Co	61,050 00

DEPARTMENT EMERGENCY FUND.

Appropriation	$10,000 00

EXPENDITURES.

Payroll, February, removing snow and ice	$3,594 25	
Payroll, March, removing snow and ice	1,094 50	
F. T. Lynch, carts	1,969 28	
George Schmink, harness	1,203 05	
Standard Motor Co., auto	1,300 00	
C. F. Earckson, cart covers	450 00	
Total expenditures		9,611 08
Surplus of credit		$388 92
Balance to surplus, 1911		388 92

REVENUE.

SALE OF REFUSE FROM STREETS.

Received from sale of refuse, horses, etc	$2,959 98
Paid into City Treasury	2,959 98

BALTIMORE SANITARY CONTRACTING COMPANY'S PLANT.

Received from Western Maryland Railroad Company	$59,327 50
Paid into City Treasury	59,327 50

STREET LIGHTING—SUPERINTENDENT OF LAMPS AND LIGHTING A—VI (35).

Appropriation		$155,206 80
EXPENDITURES.		
Total cost for maintaining and operating street gas lamps, which include rental of burners, mantles, fixtures, repairs and lamplighters' salaries, as per contract	$78,796 13	
Total cost for supply of gas to street lamps, markets and bridge lamps as per contract	64,090 93	
Connecting gas service to street lamps	3,166 94	
Transferring gas lamps	1,159 48	
Cutting off services from unused posts	171 24	
Iron lamp posts	3,322 40	
Livery for four horses and wagons	1,200 00	
Expert services and expenses, report on cost of gas and electricity for Baltimore	1,400 15	
Extra labor and salaries incident to this account	311 00	
Glass street lamp signs	460 02	
Iron enameled street signs	167 80	
Brackets for street signs	87 00	
Team hire, hauling posts and material	51 00	
One second-hand buggy for department's use	125 00	
Stamps and car tickets	15 00	
Advertising proposals	69 46	
Meter charts	19 96	
Sundry items: Hardware, paint, blue prints, lumber, cement, rope, castings, bolts and nuts, pipe, etc.	177 45	
Total expenditures		$154,790 96
Surplus of credit		$415 84
Balance to surplus, 1911		415 84

ELECTRIC LIGHTING AND MAINTENANCE.

Appropriation		$188,662 50
EXPENDITURES.		
Total cost of maintaining and operating arc lamps as per contract	$169,998 56	
Total cost for maintaining and operating arc lamps in parks and squares adjoining public streets as per contract	1,445 16	
Transferring electric arc lamps	310 23	
Relocating lamps in the underground districts—subway connections	1,200 00	
Installing and wiring ornamental lamps on City Hall plaza	931 34	
Tungsten lamps for City Hall plaza lamps	195 89	
Total cost for maintaining and operating incandescent electric lamps in streets and alleys	11,372 22	
Current for incandescent electric lamps in City Market highways	2,680 57	
Amounts carried forward	$188,133 97	$188,662 50

Amounts brought forward	$188,133 97	$188,662 50
Current for No. 6 Engine House clock	$100 66	
Expert service and report on cost for electric light plant	150 00	
Advertising proposals	179 35	
Lead cable	38 86	
Sundry items: Tubing, hardware, photometer, etc.	44 69	
Total expenditures		188,647 53
Surplus of credit		$14 97
Balance to surplus, 1911		14 97

NAPHTHA LAMPS AND MAINTENANCE.

Appropriation		$12,100 99

EXPENDITURES.

Total cost for maintaining and operating naphtha lamps, which includes the rental of burners, mantles, fixtures, repairs and lamplighters' salaries as per contract	$12,097 28	
Total expenditures		12,097 28
Surplus of credit		$3 71
Balance to surplus, 1911		3 71

REVENUE.

INSPECTION OF METERS.

Received from inspections	$1,706 56
Paid into City Treasury	1,706 56

SPECIAL STREET ILLUMINATIONS.

Approved appropriation for illumination for convention "Loyal Order Moose," per Ordinance No. 567, June 7th, 1910		$2,000 00

EXPENDITURES.

Cost—Construction of electrical work on court of honor, loops, etc., on Franklin street between Eutaw and Howard streets, as per contract July 21st, 1910	$1,887 65	
Electric current and connections	77 35	
Total expenditures		1,965 00
Surplus of credit		$35 00
Balance to surplus, 1911		35 00
Approved appropriation for illumination Grand United Order of Odd Fellows, Druid Hill avenue, per Ordinance No. 559, June 13th, 1910		$450 00
Amount carried forward		$450 00

Amount brought forward		$450 00

EXPENDITURES.

Cost—Construction of wiring arches, columns, signs, etc., as per contract	$407 66	
Electric current	21 08	
Connecting and disconnecting electric material	21 26	
Total expenditures		450 00

SEWERS AND SEWERAGE DISPOSAL A—VI (36).
CLEANING SEWERS AND INLETS.

Appropriation	$38,685 00

EXPENDITURES.

Payrolls	$33,715 50	
American Ice Co., horses	2,030 00	
Wansch & Dobos, supplies	18 00	
George P. Thomas, Jr., boots	141 40	
W. H. Stewart, sewer rods	191 25	
Holzbog Bros., carts	440 00	
N. Enameling Co., buckets	24 68	
Kindling Machinery Co., hubs	24 00	
Dietrich Bros., rods	63 75	
H. A. French & Co., supplies	123 00	
Standard Motor Co., automobile supplies	63 00	
Joseph King & Bro., horses	285 00	
Francis T. Lynch, carts	1,012 62	
E. Scott Payne Co., sundry supplies	416 77	
Total expenditures		38,548 97
Surplus of credit		$136 03
Balance to surplus, 1911		136 03

NOTE: Removed 25,192 loads sewer dirt, sand, snow and ice in 1911.

IMPROVEMENTS IN AND ADDITION TO DRAINAGE SYSTEM A—VI (36).

Appropriation	$24,000 00
Wages returned	37 00
Total receipts	$24,037 00

EXPENDITURES.

Sewer in Twentieth Street and Greenmount Avenue, (Statement showing cost of work):		
Excavation, including timbering, refilling and riprapping cobblestones and Belgian block pavement over line of sewer, 1,972 cubic yards, at $1.125	$2,218 73	
Amounts carried forward	$2,218 73	$24,037 00

Amounts brought forward	$2,218 73		$24,037 00
640 linear feet 30-inch D. S. T. C. pipe, at $1.87	1,196 80		
20 linear feet 30-inch D. S. T. C. pipe from property yard—no cost	.....		
355 linear feet 27-inch D. S. T. C. pipe, at $1.53	543 15		
2 linear feet 24-inch D. S. T. C. pipe—no cost	.....		
Laying 669.58 linear feet D. S. T. C. pipe, at .201	134 61		
Constructing 28.36 linear feet 30-inch brick work in curves, at $10.948	310 59		
Laying 366.12 linear feet 27-inch D. S. T. C. pipe, at .1742	63 78		
Laying 2 linear feet 24-inch D. S. T. C. pipe, at .1742	35		
Constructing drop-well, manholes, inlets, etc.	932 07		
Assistance on survey	8 25		
Receiving and inspecting pipe	13 50		
Digging test holes	43 25		
Superintendent	202 00		
Foreman	239 50		
Watchman and maintenance of lights	251 25		
Water Department—repairing water service pipes	16 72		
Blue prints	67		
Sharpening tools	2 05		
Hauling lumber	7 00		
Value of material left over and sent to property yard	19 12		
Total cost of work		$6,203 39	
Sewer in Lanvale Street, from Calhoun Street to Carrollton Avenue, (Statement showing cost of work):			
Excavation, including timbering and refilling, 580 cubic yards, at 0.8479	$491 80		
418 linear feet 18-inch D. S. T. C. pipe, at 0.47	196 46		
168 linear feet 15-inch D. S. T. C. pipe, at 0.31½	52 92		
228 linear feet 12-inch standard T. C. pipe, at 0.20	45 60		
Laying 418.19 linear feet 18-inch D. S. T. C. pipe, at 0.1675	70 04		
Laying 169.25 linear feet 15-inch D. S. T. C. pipe, at 0.1274	21 56		
Laying 229.25 linear feet 12-inch standard T. C. pipe, at 0.0850	19 48		
Constructing chambers, manholes and inlets	630 98		
Superintendent	67 00		
Foreman	74 50		
Amounts carried forward	$1,670 34	$6,203 39	$24,037 00

Amounts brought forward	$1,670 34	$6,203 39	$24,037 00
Digging test holes	11 62		
Assistance on surveys	1 12		
Blue prints	15		
Coal oil and lantern globes	1 48		
Ladder irons	2 25		
Consolidated Gas, Electric Light and Power Company — changing electric light pole	12 63		
Sharpening tools	50		
Repaving over sewer trench—labor, $136.94; materials, $15.40	152 34		
Maintenance of lights	7 00		
Total cost of work		1,859 43	
Cost per linear foot, including inlets, etc., $2.276.			
Sewer in Edmondson Avenue, from Pulaski Street to Monroe Street (Statement showing cost of work):			
Excavating, including timbering and refilling, 592 cubic yards, at 0.9503	$562 63		
404 linear feet 18-inch D. S. T. C. pipe, at 0.47	189 88		
242 linear feet 15-inch D. S. T. C. pipe, at 0.31½	76 23		
244 linear feet 12-inch standard T. C. pipe, at 0.20	48 80		
Laying 405.54 linear feet 18-inch D. S. T. C. pipe, at 0.1599	64 85		
Laying 243.97 linear feet 15-inch D. S. T. pipe, at 0.1176	28 71		
Laying 244.63 linear feet 12-inch standard T. C. pipe, at 0.0754	18 45		
Constructing chambers, manholes and inlets	580 95		
Superintendent	67 00		
Foreman	102 00		
Digging test holes	12 50		
Assistance on survey	1 50		
Ladder irons	4 00		
Sharpening tools	85		
Maintenance of lights	4 50		
Value of material left over and taken to Lanvale Street sewer:			
4 linear feet 18-inch D. S. T. C. pipe $1 88			
8 linear feet 15-inch D. S. T. C. pipe 2 52	4 40		
Total cost of work		1,767 25	
Cost per linear foot, including inlets, etc., $1.976.			
Amounts carried forward		$9,830 07	$24,037 00

Amounts brought forward		$9,830 07	$24,037 00
Sewer in Barre Street, from Light to Charles Streets (Statement showing cost of work):			
Excavation, including timbering, refilling, etc., 244.91 cubic yards, at $1.10	$269 40		
400 linear feet 18-inch D. S. T. C. pipe, at .47	188 00		
76 linear feet 15-inch D. S. T. C. pipe, at .31½	23 94		
Laying 476 linear feet terra-cotta pipe, including cost of sand, cement, etc., at .16	76 16		
Inlets, connecting chambers and manholes	559 44		
Foreman	169 50		
Miscellaneous hauling	30 00		
Coal oil	2 35		
Engineering expenses and superintendence	114 50		
Total cost of work		1,433 29	
Completion of Foster Avenue Sewer (Statement showing cost of work):			
Labor	$26 25		
Consolidated Gas Electric Light and Power Co.—changing location of gaslight lamps	7 18		
Hauling shelter-houses, tool-box, lumber etc.	10 00		
Total cost of work		43 43	
Sewer in Falls Road, Ordinance of Estimates for the year 1911 (Statement showing cost of work):			
Assistance on survey	$20 79		
Advertisements for proposals	43 59		
Incidentals	4 05		
Inspector	128 00		
Contractor's bids (lump sum)	3,236 00		
Bonus paid contractor	412 50		
Total cost of work	$3,844 93		
Cost per linear foot, per contract, $7,506.			
Cost per linear foot, per contract and bonus, $8,463.			
Cost per linear foot, per total expenditures, $8,918.			
Charges:			
Sundry sewers	$2,725 73		
Improvements in and additions to the Drainage System	971 23	971 23	
Repairs to sewers	147 97		
	$3,844 93		
Amounts carried forward		$12,278 02	$24,037 00

Amounts brought forward		$12,278 02	$24,037 00
Inlets provided with safety bars:			
Labor	$82 81		
Material	66 90		
Total cost		149 71	
New inlets, etc., and inlets reconstructed:			
Labor	$7,109 48		
Material	2,241 04		
Total cost	$9,350 52		
Charges:			
Improvements in and additions to the Drainage System	$9,345 83	9,345 83	
Paving Fremont avenue	4 69		
Total cost	$9,350 52		
Inlet Manholes:			
Labor	$756 50		
Material	378 50		
Total cost	$1,135 00	1,135 00	
Material on hand at property yard		1,128 44	
Total expenditures			$24,037 00

REPAIRS TO SEWERS A—VI (36).

Appropriation			$10,000 00
Wages returned			3 00
Total credit			$10,003 00

EXPENDITURES.

Sewer in Falls Road:			
See detail Improvement in and Addition to Drainage System		$147 97	
McMechen Street Sewer, (Statement showing cost of work):			
Granite blocks	$207 25		
Cement	47 25		
Sand	60		
Labor, superintendence and incidentals	1,078 46		
Total cost of work		1,333 56	
Amounts carried forward		$1,481 53	$10,003 00

Amounts brought forward		$1,481 53	$10,003 00
Schroeder Run Sewer, (Statement showing cost of work):			
Granite blocks	$207 25		
Cement	14 85		
Sand	3 20		
Labor, superintendence and incidentals	561 34		
Total cost of work		786 64	
Chatsworth Run Sewer, (Statement showing cost of work):			
Granite blocks	$207 25		
Cement	26 73		
Sand	80		
Labor, superintendence and incidentals	556 38		
Total cost of work		791 16	
Inlet and Minor Sewer Repairs:			
Total number of inlets repaired	666		
Total cost of work		5,031 69	
Charge:			
Repairs of sewers, material on hand Property Yard		1,200 00	
Total expenditures			9,291 02
Surplus of credit			$711 98
Balance to surplus, 1911			711 98

CONSTRUCTION OF SEWERS AND DRAINS.

Appropriation			$9,331 05
EXPENDITURES.			
Sewer in Lafayette avenue, between Milton and Montford avenues, (Ordinance of Estimates for the year 1911. Statement showing cost of work):			
Excavation, including timbering, refilling, etc., 333 cubic yards, at $1.357	$451 95		
434 linear feet 20-inch D. S. T. C. pipe, at 0.58½	253 89		
2 linear feet 20-inch D. S. T. C. pipe, from yard, at 0.58½	1 17		
45 linear feet 15-inch D. S. T. C. pipe, (inlet connections) at 0.31½	14 18		
Laying 436.73 linear feet 20-inch D. S. T. C. pipe, at 0.173	75 57		
Constructing chamber, manhole and inlets	372 96		
Amounts carried forward	$1,169 72		$9,331 05

Amounts brought forward	$1,169 72		$9,331 05
Foreman	200 00		
Assistance on survey	1 50		
Receiving and inspecting pipe	2 00		
Digging test holes	6 25		
Erecting shelter	12 19		
Watchman and maintenance of lights	41 00		
Sharpening tools	55		
Hardware	28 26		
Consolidated Gas, Electric Light and Power Company—changing location of gaslight lamps	17 52		
Water Department—changing water supply pipe	8 93		
Riprapping cobblestone pavement over sewer trench	48 75		
Restoring cement pavement around inlet on Milton avenue—labor and materials	7 54		
Hauling	14 00		
Moving tools, box, etc., to property yard	6 50		
Value of material left over and taken to property yard—bricks, $5.28; lumber, $6.00	11 28		
Total cost of work		$1,575 99	
Cost per linear foot, $3.608.			
Reconstruction of Howard Street Sewer. (Ordinance of Estimates for the year 1911. Statement showing cost of work):			
Excavation, refilling, etc., 483.83 cubic yards, at $1.16	$561 25		
Labor, tearing out arch of old sewer	279 12		
Hauling dirt and debris to dump	183 12		
Concrete, including labor, cement, sand, iron bars, stone, lumber for forms etc., 176.5 cubic yards, at $10.98	1,937 97		
Foreman	340 00		
Watchman	210 00		
Inlets, including 15 and 18-inch pipe connections	506 83		
Hardware, oil, gum boots and sharpening tools	102 53		
Water tap	4 98		
Lumber used in building shanty and bracing trench	37 23		
Engineering expenses	35 25		
Total cost of work		4,198 28	
Sewers in Falls road—Labor and material. (See account Improvement in Drainage system)		2,725 73	
Amounts carried forward		$8,500 00	$9,331 05

Amounts brought forward		$8,500 00	$9,331 05
Extension of Sewer in University Parkway:			
This sewer was constructed in 1910 at a cost of $831.05, which amount was charged to Private Paving and Inspection for that year and billed to the Roland Park Company, they agreeing to advance the funds for the construction of the work	$831 05	831 05	
The above amount was provided for in the Ordinance of Estimates for 1911 and refunded to the Roland Park Company.			
Charge: Sundry Sewers.			
Total expenditures			9,331 05

LOWERING EUTAW STREET DRAINS A—VI (36).

Appropriation	$2,400 00

EXPENDITURES.

Sewer in Eutaw street (Statement showing cost of work):			
Excavation, including timbering, refilling, etc., 674.5 cubic yards, at $1.50	$1,011 76		
Laying 372 linear feet pipe, including cement and sand, at .21	78 12		
Disconnecting, taking up and cleaning old 20-inch pipe	78 50		
Manhole and inlets, including 15-inch T. C. pipe connections	499 86		
Foreman	199 50		
Hauling dirt to dump	63 75		
Labor maintaining light	6 00		
Lumber	78 22		
Hardware, gum boots, sharpening, tools, etc.	39 42		
Miscellaneous hauling	33 00		
Engineering expenses	24 50		
Total cost of work		2,112 63	
Total expenditures			2,112 63
Surplus of credit			$287 37
Balance to surplus, 1911			287 37

SEWERAGE COMMISSION A—VI (36).

Appropriation, salaries, administrative $26,900 00

EXPENDITURES.

Peter Leary, Jr., Chairman (Died Feb. 13, 1911)...	$616 07	
W. D. Platt, Commissioner.....	1,500 00	
Morris Whitridge, Commissioner.....	1,500 00	
Ira Remsen, Commissioner.....	1,500 00	
J. Edward Mohler, Commissioner.....	1,500 00	
Charles England, Commissioner, $375.00; Chairman, $2,221.65; elected March 7, 1911.....	2,596 65	
William W. McIntire, Commissioner, Qualified April 19, 1911.....	925 00	
Calvin W. Hendrick, Chief Engineer.....	9,999 96	
Harry W. Rodgers, Secretary.....	2,499 96	
Philip F. McGreevy, Assistant Secretary.....	1,500 00	
Mary E. Jennison, Stenographer.....	780 00	
William E. Baker, Clerk.....	600 00	
Bertie E. Mitchell, Telephone Operator-Clerk.....	540 00	
William C. Briscoe, Messenger, (Resigned Oct. 4, 1911)	383 87	
Herbert L. Grymes, Messenger (Appointed Oct. 3, 1911)	96 13	
Total expenditures		26,537 64
Surplus of credit.....		$362 36
Balance to Loan account.....		362 36

CONSTRUCTION FORCE SALARIES.

Appropriation $131,050 00

EXPENDITURES.

A. M. Brosius, First Assistant Engineer.....	$3,999 96	
Ezra B. Whitman, Division Engineer, (Resigned Oct. 1, 1911).....	2,850 00	
O. W. Connet, Division Engineer.....	3,600 00	
Thomas D. Pitts, Division Engineer.....	3,600 00	
A. H. Hartman, Division Engineer.....	3,600 00	
J. F. Apsey, Assistant Division Engineer.....	2,100 00	
R. L. Burwell, Assistant Division Engineer.....	2,100 00	
Wm. A. Megraw, Assistant Engineer.....	2,100 00	
H. C. McRae, Assistant Division Engineer.....	2,100 00	
F. H. Cronin, Mechanical Engineer, (Appointed May 9, 1911).....	1,073 33	
A. F. Nagle, Mechanical Engineer, (Resigned March 1, 1911.....	250 00	
John J. Frederick, Secretary to Chief Engineer....	1,643 75	
L. J. Houston, Jr., Assistant Engineer "A".....	1,500 00	
E. H. Burwell, Assistant Engineer "A".....	1,500 00	
C. K. Allen, Assistant Engineer "A".....	1,500 00	
H. S. Shryock, Assistant Engineer "A".....	1,500 00	
Amounts carried forward.....	$35,017 04	$131,050 00

Amounts brought forward	$35,017 04	$131,050 00
John Martin, Assistant Engineer "A," (Resigned Sept. 1, 1911)	1,062 50	
A. C. Toner, Assistant Engineer "A"	1,500 00	
A. E. Falkenberg, Assistant Engineer "A," (Resigned Oct. 1, 1911)	1,187 50	
Thomas M. Ward, Assistant Engineer "A"	125 00	
R. H. Williams, Assistant Engineer "A," (Resigned Oct. 1, 1911)	1,187 50	
H. F. Schaefer, Assistant Engineer "B"	1,200 00	
H. S. Regester, Jr., Assistant Engineer "B"	1,200 00	
F. W. Caspari, Assistant Engineer "B"	1,200 00	
Ralph Hutchins, Assistant Engineer "B"	1,200 00	
John Moore, Assistant Engineer "B"	1,200 00	
Robert Rumbold, Assistant Engineer "B"	1,187 50	
Wm. L. Williams, Assistant Engineer "B"	1,200 00	
Joseph H. Straus, Jr., Assistant Engineer "B"	1,187 50	
G. J. Requardt, Assistant Engineer "B"	960 08	
J. W. Cleveland, Assistant Engineer "B"	920 03	
J. H. Ensey, Assistant Engineer "B" (Appointed Nov. 29, 1911)	47 21	
E. F. Davis, Inspector	1,500 00	
C. S. York, Inspector	1,500 00	
J. H. Sothoron, Inspector	1,500 00	
John J. Neal, Inspector	1,500 00	
M. J. Ruark, Inspector	1,500 00	
C. I. Hammond, Inspector	1,200 00	
A. D. Tapscott, Inspector	1,200 00	
George T. Robinson, Inspector	1,200 00	
S. A. Lusby, Inspector	1,200 00	
F. S. Jackson, Inspector, (Resigned June 15, 1911)	750 00	
A. E. B. Jones, Inspector	1,200 00	
W. J. Caple, Inspector	1,150 00	
F. D. Christhilf, Inspector	1,195 00	
W. H. Bell, Inspector, (Re-appointed Oct. 3, 1911)	206 13	
George E. Schaeffer, Inspector	1,080 00	
Wm. Brogden, Inspector, (Re-appointed Oct. 10, 1911)	198 87	
J. F. Garrett, Inspector	1,080 00	
H. A. Albert, Inspector	1,080 00	
Henry Kelly, Inspector	1,080 00	
Karl E. G. Kaufman, Inspector	1,080 00	
H. A. Browne, Inspector	1,019 03	
F. DeWolf Theobald, Inspector	1,080 00	
J. H. Davidson, Inspector	1,080 00	
A. S. Bartholomaei, Inspector	1,080 00	
John Dougherty, Inspector	792 10	
A. J. Boyle, Inspector, (Resigned June 13, 1911)	531 00	
John C. Strohm, Inspector	1,080 00	
J. H. Gambrell, Inspector	1,080 00	
E. B. Richards, Inspector	1,080 00	
Wm. F. Dolliver, Inspector	936 05	
J. M. Knight, Inspector	936 05	
W. J. Boyle, Inspector	1,080 00	
L. H. Francis, Inspector	1,080 00	
H. H. Williams, Inspector	936 05	
Amounts carried forward	$87,772 14	$131,050 00

Amounts brought forward	$87,772 14	$131,050 00
George B. Roberts, Inspector, (Resigned April 15, 1911)	360 00	
William Byrd, Inspector	1,080 00	
M. W. Garrett, Inspector	1,080 00	
John Lynch, Inspector	1,080 00	
H. G. Maynard, Inspector	936 05	
F. H. Firoved, Draftsman	1,200 00	
John A. Holthous, Inspector	213 39	
John A. Holthaus, Inspector (Appointed Oct. 3, 1911)	213 39	
J. E. Shepperd, Draftsman	1,200 00	
E. V. Hax, Draftsman	1,116 65	
C. A. Murphy, Draftsman	1,200 00	
C. B. Sadler, Draftsman	1,191 67	
M. F. Rodgers, Draftsman	940 04	
C. G. Harig, Draftsman	920 03	
D. B. Stewart, Jr., Draftsman, (Resigned Aug. 18, 1911)	621 90	
George W. Townsend, Draftsman	999 96	
J. Lee Chapman, Draftsman, (Appointed Nov. 15, 1911)	75 00	
Robert Dall, Jr., Draftsman	900 00	
Thomas D. Conn, Draftsman	900 00	
H. N. O'Brien, Draftsman	72 50	
I. Behrman, Draftsman	900 00	
E. H. Brosius, Draftsman, (Appointed May 9, 1911)	525 00	
Carl Klaesius, Draftsman (Resigned Aug. 8, 1911)	394 35	
H. J. Armstrong, Draftsman (Resigned March 1, 1911)	187 50	
J. F. Diggs, Draftsman, (Appointed Oct. 3, 1911)	134 51	
C. Edgar Wood, Draftsman, (Appointed Oct. 3, 1911)	140 32	
Wm. A. Twamley, Draftsman, (Appointed Dec. 4, 1911)	24 19	
Samuel Appleby, Draftsman, (Appointed Aug. 1, 1911)	250 65	
D. G. Frazer, Draftsman, (Appointed Aug. 1, 1911)	258 39	
Leslie C. Frank, Draftsman, (Appointed July 25, 1911)	270 00	
G. Herman Carl, Draftsman, (Appointed July 25, 1911)	270 00	
E. B. Gilmour, Draftsman, (Appointed June 12, 1911)	340 00	
C. F. Black, Draftsman, (Appointed June 12, 1911)	354 00	
F. E. Rasmers, Draftsman, (Appointed June 12, 1911; resigned Dec. 15, 1911)	354 00	
Wm. J. Frere, Jr., Draftsman, (Appointed June 6, 1911)	368 00	
H. W. Chipchase, Draftsman, (Appointed Nov. 1, 1911)	90 00	
Amounts carried forward	$108,720 24	$131,050 00

Amounts brought forward	$108,720 24	$131,050 00
W. B. O'Connor, Jr., Draftsman, (Appointed Oct. 17, 1911)	89 52	
T. W. Sasscer, Rodman "A"	756 06	
H. N. Brannan, Rodman "A," (Appointed Oct. 3, 1911)	180 25	
J. S. Thompson, Jr., Rodman "A," (Appointed Oct. 3, 1911)	177 82	
Wm. Wagner, Rodman "A"	900 00	
R. T. Tunstall, Rodman "A"	900 00	
J. Carroll Daily, Rodman "A," (Resigned Aug. 1, 1911)	562 50	
H. M. Webb, Rodman "A"	756 06	
W. W. Herbert, Rodman "A"	756 06	
L. C. Miller, Rodman "A"	900 00	
C. G. Walker, Rodman "B," (Appointed Dec. 1, 1911)	30 00	
John T. Merritt, Rodman "B," (Appointed Nov. 29, 1911)	34 00	
A. T. Hilton, Rodman "B," (Appointed Oct. 3, 1911)	140 32	
W. K. Potter, Rodman "B," (Appointed Oct. 3, 1911)	142 26	
W. H. Vickers, Rodman "B," (Appointed Oct. 17, 1911)	107 42	
J. P. Joynes, Rodman "B," (Appointed June 12, 1911)	310 00	
C. J. Hellen, Rodman "B," (Appointed June 12, 1911)	360 00	
Charles H. Brooks, Rodman "B"	720 00	
Conrad Kraeter, Rodman "B"	720 00	
Paul Wroth, Rodman "B"	720 00	
H. W. Johenning, Rodman "B"	720 00	
Wm. C. Briscoe, Rodman, (Appointed Oct. 4, 1911)	120 16	
F. J. Parran, Assistant Engineer "A"	1,236 05	
A. W. Gerlach, Clerk-Stenographer	949 98	
F. W. Ensey, Clerk-Stenographer, (Appointed April 11, 1911)	597 50	
J. L. Pennington, Clerk-Stenographer	900 00	
E. C. Hasson, Clerk-Stenographer	900 00	
G. A. Hays, Clerk-Stenographer, (Resigned April 1, 1911)	262 50	
W. L. Prout, Clerk-Stenographer, (Appointed April 5, 1911)	627 50	
Victor Klausmeyer, Clerk-Stenographer, (Resigned April 1, 1911)	262 50	
George J. Armeling, Bacteriologist	1,191 67	
H. R. Gundlach, Bacteriologist, (Appointed Nov. 1, 1911)	124 99	
H. H. Smith, Clerk	550 00	
Total expenditures		126,425 36
Surplus of credit		$4,624 64
Balance to Loan		4,624 64

SPECIAL EXPENSES.

Appropriation		$27,362 00

EXPENDITURES.

Rent of offices:		
American Building	$4,512 84	
25 E. North avenue	799 92	
9 North Exeter street	27 82	
529 S. Sharp street	32 00	
329 W. Pratt street	90 00	
2018 Pennsylvania avenue	80 00	
123 Pearl street	69 60	
216 N. Gay street	40 00	
	$5,652 18	
Typewriters	211 94	
Typewriter supplies	78 00	
Instruments	85 25	
Drawing materials	1,104 90	
Stationery and office furnishings	1,293 38	
Printed forms	20 11	
Type	11 83	
Tools and hardware	467 62	
Furniture	440 14	
Lanterns, globes, etc	12 45	
Paints and oils	174 38	
Filing supplies	174 76	
Chemicals and laboratory supplies	55 46	
Hose	35 76	
Electric fixtures and supplies	56 97	
Lumber	120 53	
Thermometers	6 00	
Rubber boots, coats and gloves	162 38	
Glass	5 35	
Book-case	3 50	
Rope, canvas bags and covers	24 00	
Leather cases	84 00	
Stop watch	14 00	
Hauling	1 50	
Advisory engineers	3,265 11	
Gas at Walbrook	1 25	
Advertising for proposals, etc	2,862 16	
Ice	85 40	
Coal	196 90	
Printing contract specifications	838 94	
Blue printing	758 73	
Photography	2,569 05	
Car fares	1,612 40	
Repairs to furniture, typewriters, etc	187 46	
Towel service	260 60	
Postage	532 45	
Carriage and automobile hire	16 90	
Oak plugs	17 50	
Installing electric bell at 2018 Pennsylvania avenue	1 75	
Removing partitions between rooms 907-8-9 American building	150 00	
Inlet and grating	25 62	
Amounts carried forward	$23,678 61	$27,362 00

Amounts brought forward	$23,678 61	$27,362 00
Binding plats	22 50	
Mirrors	6 00	
Hauling and expressage	820 87	
City Directory	7 00	
Examining titles, acknowledging and recording deeds	310 80	
Telephone service	760 90	
Newspapers	24 71	
Fees of architect at Pumping Station	1,513 11	
Exhibit at Pure Food Show	45 00	
Sharpening tools	2 00	
Premium on secretary's bond	25 00	
Repairs to 508 E. Chase street	12 25	
Repairing adding machine	2 80	
Keys	50	
Lettering	1 85	
Electric fan current	3 75	
Total expenditures		27,237 65
Surplus of credit		$124 35
Balance to loan		124 35

SEWERAGE COMMISSION. CONSTRUCTION ACCOUNT.

Appropriation	$1,540,000 00
Brought forward from 1910	1,062,754 00
Rents, sale of old material, etc	4,134 74
Total credits	$2,606,888 74

EXPENDITURES.

Construction payment on contracts as per following table, pages 213 and 214	$1,165,208 32	
Day labor	20,410 08	
Digging test pits to locate underground obstructions	4,478 41	
Inspecting private drain construction	276 50	
Paving done by City Engineer's Department	26,439 99	
Shifting of water mains by the Water Department	6,713 03	
Shifting electrical conduits by the Electrical Commission	36 29	
Terra cotta pipe and cement	2,124 91	
Brick, sand and lumber	2,006 38	
Sewer gratings, inlets, couplings, manhole covers, frames and steps	347 54	
Steel, iron, lead, pipe, fittings, tools and hardware	1,882 58	
Iron chain	4 75	
Fiber risers	8 00	
Northern Central Railway Company—Removing telegraph pole	17 84	
Amounts carried forward	$1,229,954 62	$2,606,888 74

Amounts brought forward	$1,229,954 62	$2,606,888 74
Board of Fire Commissioners—Pressure hose	30 00	
P. T. Barry—Repairing water basin at pumping station office	7 45	
C. T. Gray—Repairing embankment at Back River	289 00	
Nozzles	22 50	
Stone	6 45	
Automatic pumps and engines	367 35	
Repairs to 508 East Chase street	82 62	
Door sash, fittings and metal windows at Back River	80 50	
Northern Central Railway Company—Raising cable on line of Jones' Falls interceptor	16 58	
Lathbury-D'Olier Company—Report on Sewerage screen	454 86	
Grass seed	37 45	
Lamp rods and pump rods	3 85	
Repairing water pipe at Light and York streets	1 05	
E. J. Dowell—Repairs to 137 North Bradford street	194 96	
N. P. Sellman—Painting water tanks at Back River	216 00	
H. B. Joyce—Rodding stack at the pumping station	242 50	
Cast iron threshold, Back River	6 50	
Weirs for sewers	13 26	
Cleaning sewer at Collington avenue and Preston place	36 80	
Hildreth & Co.—Inspecting steel	22 76	
Restoring fence on Phillips' property	90 00	
Gas tar	30	
"I" beams	10 55	
Repairing pipe at 731 East Hoffman street	2 57	
Tile and trimmings	88 65	
Repairing well on the Thorne property	45 40	
Havermeyer deformed bars	185 00	
Repairing well on the Phillips' property	101 10	
Repairing water pipe at Brunt and Bloom streets	7 50	
Pumping water from cellar 1312 North Gay street	33 55	
Hauling	7 20	
Electric motor	57 75	
Fire hydrant keys	1 92	
Check valves and sewer gates	233 00	
Sewage siphons	130 00	
Phosphor bronze rope	10 00	
Repairing private drain Eagle and Castle streets	12 00	
Pumping out grit well at the pumping station	20 00	
Jacob Norris—Settle of claim for damage to property at Back River	3,600 00	
B. & O. R. R—Testing steel bars	16 00	
Repairing tools	24 78	
Patterns	25 50	
Replacing window glass at 401 Third avenue	6 00	
Discs	2 16	
Repairing supply pipe Greenmount avenue and Hoffman street	19 05	
Amounts brought forward	$1,236,817 04	$2,606,888 74

Amounts carried forward	$1,236,817 04	$2,606,888 74
Grade rods	70 80	
C. T. Gray—Team hire at Back River	723 64	
Rent—American Building	461 75	
Advertising	107 54	
C. & P. Telephone Company—Telephone service	672 13	
Dosing chamber device	302 66	
Insurance on Back River property	39 00	
Lead-covered cable	56 75	
Barbara C. Gettier—purchase of reversion 307 East Biddle street	1,577 23	
G. W. Stanton—Purchase of leasehold 307 East Biddle street	2,179 73	
J. M. Gallagher—Purchase reversion 1115 Guilford avenue	1,578 09	
Mary E. Hakesley—Purchase of leasehold 1113 Guilford avenue	1,187 29	
S. C. Little—Recording Gallagher, Stanton and Hakesley deeds	9 00	
Total expenditures		1,245,782 65
Surplus of credit		$1,361,106 09
Amount forward to 1912	$970,039 29	
Balance to loan	391,066 80	
		1,361,106 09

Contract.	Contractor.	Amount Paid on Contract.	Amount Paid Extra Work.	Total Paid.
P. S. Machinery	Bethlehem Steel Company	$46,505 81	$3,642 97	$50,148 78
Sew. Con., 3	Noel Construction Company	13,057 97	383 33	13,441 30
Sew. Con., 4	Noel Construction Company	50,648 30	1,702 16	52,350 46
S. W. Con., 2	David Peoples	728 75	.....	728 75
Sanitary Con., 36	Fisher & Carozza	132,208 59	.....	132,208 59
Sanitary Con., 30	N. Y. Cont. Jew. Fil. Company	74,843 59	1,374 80	76,218 39
S. W. Con., 3	David Peoples	1,558 10	.....	1,558 10
Sanitary Con., 35	T. W. Reilly	3,645 90	.....	3,645 90
Sanitary Con., 40	Lane Bros. Co. & Jones	6,449 11	551 62	7,000 73
Sanitary Con., 41	T. W. Reilly	5,980 87	.....	5,980 87
Sanitary Con., 42	M. A. Talbott Company	2,315 45	.....	2,315 45
Sanitary Con., 44	David Peoples	1,830 00	.....	1,830 00
Sanitary Con., 45	David Peoples	1,790 05	.....	1,790 05
Sanitary Con., 46	Ryan & Reilly	20,800 39	2,047 65	22,848 04
Sanitary Con., 47	B. F. Sweeten & Son	21,427 59	2,525 92	23,953 51
Sanitary Con., 48	Irwin Brothers	3,486 44	19 62	3,506 06
Sanitary Con., 49	Irwin Brothers	480 08	.....	480 08
S. W. Con., 9	David Peoples	59,160 18	703 57	59,863 75
Sanitary Con., 50	United Engineering & Con. Co	37,015 04	93 40	37,108 44
Sanitary Con., 51	McCay Engineering Co	20,458 40	14 52	20,472 92
Sanitary Con., 52	Wm. McCarthy & Co	26,381 51	67 34	26,448 85
Sanitary Con., 53	D. V. Ault & Co	5,925 10	.....	5,925 10
Sanitary Con., 54	W. H. & C. F. Thompson	19,661 30	773 71	20,435 01
S. W. Con., 10	George F. Beavin	5,578 59	132 52	5,711 11
Sanitary Con., 55	B. F. Sweeten & Son	33,637 03	1,531 65	35,168 68
Sanitary Con., 56	Dietz Engineer Company	11,284 00	.....	11,284 00
Sanitary Con., 57	Whiting-Middleton Company	64,087 00	581 29	64,668 29
Sanitary Con., 58	McCay Engineering Company	36,825 86	481 38	37,307 24

CONSTRUCTION, PAYMENT ON CONTRACTS.—*Continued.*

Contract.	Contractor.	Amount Paid on Contract.	Amount Paid Extra Work.	Total Paid.
Sanitary Con., 59	Central Electric Company	$1,660 02	.....	$1,660 02
Sanitary Con., 61	B. F. Sweeten & Son	85,731 61	$2,871 63	88,603 24
S. W. Con., 11	Wm. McCarthy & Co	11,964 15	278 82	12,242 97
Sanitary Con., 62	McCay Engineering Company	65,380 76	66 86	65,447 62
Sanitary Con., 63	Wm. McCarthy & Co	68,772 76	2,776 67	71,549 43
Sanitary Con., 64	Wanner Steam & Hot Water Heating Company	1,807 99	59 29	1,867 28
S. W. Con., 12	C. B. Clark & Co	57,463 42	.....	57,463 42
Sanitary Con., 60	D. M. Andrew Company	17,757 90	.....	17,757 90
Sanitary Con., 66	B. F Sweeten & Son	51,291 75	732 17	52,023 92
Sanitary Con., 67	M. J. Beach	13,813 68	.....	13,813 68
Sanitary Con., 71	G. R. Abbott	855 42	31 44	886 86
Sanitary Con., 74	B. F. Sweeten & Son	7,997 50	.....	7,997 50
S. W. Con., 14	M. M. Elkan	29,048 71	.....	29,048 71
S. W. Con., 15	M. J. Beach	4,785 79	65 23	4,851 02
S. W. Con., 13	Ryan & Reilly	9,525 80	.....	9,525 80
Sanitary Con., 75	W. H. & C. F. Thompson	4,001 12	.....	4,001 12
Sanitary Con., 76	W. H. & C. F. Thompson	2,069 38	.....	2,069 38
		$1,141,698 76	$23,509 56	$1,165,208 32

MAINTENANCE OF BRIDGES AND CULVERTS A—VI (37).

Appropriation		$16,000 00
Wages returned		10 00
Total credits		$16,010 00

EXPENDITURES.

Labor, as per pay rolls	$9,955 62	
Lumber	2,224 72	
Tools and hardware, etc	143 78	
Steel work, etc	1,235 71	
Paints, oils and brushes	175 73	
Hauling	117 25	
Coal tar	83 00	
Coal oil	10 25	
Crushed stone, gneiss	30 54	
Cement	58 74	
Paving sand, 13 cubic yards	13 20	
Screened sand, 10 cubic yards	12 00	
Standard road plates	43 18	
Cutting off and reconnecting lamps	15 75	
Gum boots	17 40	
Pipe	75 79	
Angles	54 63	
Wire	7 20	
Gum blocks	3 50	
Steel hand rail	25 65	
Blue printing	5 95	
Miscellaneous	7 62	
Hand taps	1 10	
Tape lines	3 56	
Total expenditures		14,321 87
Surplus of credit		$1,688 13
Balance to surplus, 1911		1,688 13

LIGHT STREET BRIDGE A—VI (37).

Appropriation	$7,019 00
Received for repairs to bridge (United Railways and Electric Company)	63 04
Total credits	$7,082 04

EXPENDITURES.

Advertising	$70 52	
Lights	283 90	
Wages	4,372 44	
Repairs	1,810 55	
Supplies	166 32	
Fuel	378 31	
Total expenditures		7,082 04

PRATT STREET BRIDGE PROPERTY A—VI (37).

Appropriation		$185,000 00
Rents, etc		163 20
Total credits		$185,163 20

EXPENDITURES.

Property	$57,545 63	
Damages on account closing East Falls avenue	400 00	
Paid contractor (D. V. Ault & Co.)	18,811 84	
Testing materials	91 80	
Engineering supplies	35 35	
Stamps	5 00	
Engineers, rodmen, etc	736 00	
Inspectors	1,827 50	
Total expenditures		79,453 12
Surplus of credit		$105,710 08
Balance to surplus, 1911		105,710 08

GWYNN'S FALLS BRIDGE, ON FRANKLIN ROAD A—VI (37).

Balance carried forward from 1910	$180 52
Expended	109 35
Surplus of credit	$71 17
Balance to surplus, 1911	71 17

EDMONDSON AVENUE BRIDGE OVER GWYNN'S FALLS A—VI (37).

Balance carried forward from 1910	$4,713 05
Expended	3,243 09
Surplus of credit	$1,469 96
Balance to surplus, 1911	1,469 96

MISCELLANEOUS A—VI (38).

Maintenance of Property Yard.

Appropriation		$2,800 00

EXPENDITURES.

Superintendent	$900 00	
Assistant Superintendent	717 50	
Clerk	591 13	
Lumber	162 58	
Coal	58 35	
Roofing and tar paper	32 85	
Amount carried forward		$2,462 41

Amounts brought forward		$2,462 41
Paving sand, 40 cubic yards	28 00	
Gravel, 74 cubic yards	74 00	
Cement, 412 bags	152 44	
Paints, oils and brushes	4 05	
Derrick iron	9 90	
Gas for lighting office	13 07	
Ice	10 44	
Installing water supply	9 43	
Removing night soil	10 00	
Stove and pipes, etc	6 75	
Iron pipe for blower	6 00	
Gear for hand power	3 05	
Grate, bibb and bar	2 27	
Miscellaneous	50	
Total expenditures		2,792 31
Surplus of credit		$7 69
Balance to surplus, 1911		7 69

UNDERPINNING BUILDINGS ON HOWARD, EUTAW AND HAMBURG STREETS A—VI (38).

Appropriation from Contingent Fund	$5,500 00
Expended	5,094 76
Surplus of credit	$405 24
Balance carried forward to 1912	405 24

CONSTRUCTING BASE FOR KEY MONUMENT A—VI (38).

Balance carried forward from 1910	$87 89
Expended	54 99
Surplus of credit	$32 90
Balance to surplus, 1911	32 90

INSURANCE ON CITY PROPERTY A—VI (38).

Appropriation	$17,000 00
Received from Baldwin & Frick	2 57
Received from American Insurance Company	28
Received from Traders' Insurance Company	21 61
Received from Insurance Company of North America	49
Total credits	$17,024 95
Amount carried forward	$17,024 95

Amount brought forward		$17,024 95

EXPENDITURES.

Bay View Asylum	$6,449 93	
Street Cleaning Department:		
Greenmount avenue stables and contents	413 96	
Gould street stables and contents	394 74	
Pratt street stables and contents	2,508 24	
Fulton avenue stables and contents	345 87	
Horses, Fairmount Farm	50 00	
Western High School	300 00	
Old Eastern High School, Aisquith street	375 00	
Eastern High School, North avenue	2,287 50	
Baltimore Polytechnic Institute (E. North ave.)	318 08	
Baltimore Polytechnic Institute (Courtland st.)	1,633 37	
Boilers, schools	415 25	
School furniture stored over produce market	20 00	
Tug Timanus	360 00	
Boilers, free public baths	155 00	
Stable, Laurel street	4 00	
Property Woodbrook avenue	19 20	
Boilers, Courthouse	100 00	
Laundry and stable, Sydenham Hospital	41 24	
Elevators, Courthouse and City Hall	160 65	
Elevator, Produce Market	47 25	
Total expenditures		16,399 28
Surplus of credit		$625 67
Balance to surplus, 1911		625 67

RAILROAD SIDING AND TRAMWAY—BAYVIEW A—VI (38).

Appropriated from Contingent Fund	$1,500 00
Carried forward to 1912	1,500 00

COMMISSION ON CITY PLANS A—VI (38).

Appropriation			$500,000 00
EXPENDITURES.			
Special attorney—Edwin H. Brownley	$2,975 80		
Superintendent—J. Newman Numsen	441 45		
Superintendent—J. C. Grinnalds	425 00		
Draughtsman—J. C. Grinnalds	212 50		
Transitman—A. Needham	101 62		
Transitman—A. C. Knight	296 37		
Rodsman—A. C. Knight	66 00		
Rodsman—C. G. Walker	250 40		
Rodsman—G. McD. Christliff	168 00		
Rodsman—R. Norman Hanna	184 00		
Rodsman—B. Hanson	208 00		
Rodsman—Shirley Hoff	98 00		
Stenographer—Gertrude Cole	121 61		
Stenographer—Mary R. Powell	560 00		
		$3,108 75	
Amounts carried forward		$3,108 75	$500,000 00

Amounts brought forward		$6,108 75	$500,000 00
Fredk. Story, examining titles	$1,500 00		
Calvert Building and Construction Co., rent	916 65		
Minch & Eisenbrey, office furniture	541 45		
Library Bureau, furniture	68 63		
Remington typewriter	85 91		
G. W. Bromley & Co., Atlas of Baltimore.	30 00		
David Bendann, framing	24 50		
King Bros., printers	14 89		
Lucas Bros., stationery	47 92		
Wm. R. G. Irwin, compiling for tax assessment	61 13		
Murray K. Martin, Holland shades	12 00		
Edwin H. Brownley, expenses to convention, Philadelphia	27 50		
Meyer & Thalheimer	23 18		
Jas. F. Thrift, Comptroller, postage, car fare	50 84		
Incidental expenses, newspaper advertisements, etc	166 62		
		3,571 22	
Total expenditures			9,679 97
Surplus of credit			$490,320 03
Balance to loan			490,320 03

LOT AND BUILDING FOR STABLES A—VI (38).

Appropriation		$59,000 00
EXPENDITURES.		
John A. Barker et al., fee	$100 00	
John Watson, fee	65 00	
King Bros., printing	82 25	
Charles C. Fulton & Co., proposals	126 71	
E. Raine, proposals	65 11	
W. O. Atwood, survey	23 00	
Caughy, Hearn & Carter, fee	25 00	
Harbor Board work	1,545 67	
Topographical Survey, blueprints	49 04	
By Comptroller's Department, paid for sites and sundries	12,296 40	
Total expenditures		14,378 18
Surplus of credit		$44,621 82
Balance carried forward to 1912		44,621 82

REVENUE.

Motor Vehicles, Licenses and Fines.

Received from Motor License Commissioner	$14,378 18
Paid into City Treasury	14,378 18

5. PUBLIC INDUSTRIES

WATER ENGINEER'S DEPARTMENT A—VI (39).

Appropriation, salaries $94,180 00

EXPENDITURES.

Water Engineer, Alfred M. Quick	$3,177 42	
Water Engineer, Ezra B. Whitman	822 58	
Secretary to Water Engineer and Water Board, C. L. Rector	1,680 00	
File Clerk, Leo F. Winterling	869 76	
Messenger, B. L. Hess	720 00	
Engineering Division:		
Assistant Water Engineer, R. L. Clemmitt	2,400 00	
Clerk to Water Engineer, T. P. Bolgiano	1,200 00	
Meter Clerk, F. M. Lewis	750 00	
Mechanical Engineer, G. H. Leaverton	1,500 00	
Architect, Wm. J. Fizone	57 50	
Draughtsman, John Weber	1,020 00	
Draughtsman, M. L. Hoffacker	960 00	
Draughtsman, W. C. Caldwell	960 00	
Draughtsman, J. J. Kernan	960 00	
Meter Tester, Wm. E. Kerr	900 00	
Civil Enginer, O. W. Bump	800 00	
Civil Engineer, T. D. Levering	350 00	
Rodman, Charles F. Martin	747 50	
Draughtsman, Edgar A. Faber	880 00	
Pump Inspector, A. F. Nagle	200 00	
Auditing Division:		
Chief Clerk, C. W. Nagle	1,800 00	
Paymaster, F. L. Webb	1,500 00	
Bookkeeper, W. F. Yost	1,200 00	
Order Clerk, W. L. Hawkins	1,020 00	
Construction Division:		
Superintendent, George R. Truelove	1,740 00	
Clerk to Superintendent, Louis Bach	840 00	
Chief Record Clerk, W. S. Carr, Jr.	1,096 67	
Assistant Record Clerk, J. P. Phillips	1,020 00	
Assistant Clerk, D. P. Sweeney	476 82	
Assistant Clerk, Robert Carroll	60 00	
Assistant Clerk, O. C. Berry	900 00	
Assistant Clerk, A. S. Frank	900 00	
Office Clerk, Alexander Barber	900 00	
Assistant Office Clerk, B. H. Geipe	840 00	
General Foreman, M. F. Gorman	1,320 00	
Superintendent of Paving, J. M. Toner	1,080 00	
Superintendent of Wagons, J. L. Lang	900 00	
Watchman, C. Stamm	660 00	
Watchman W. Murray	637 33	
Storekeeper, T. Tipton	960 00	
Distributing Engineer, Wm. J. West	1,295 82	
Amounts carried forward	$42,101 40	$94,180 00

Amounts brought forward	$42,101 40	$94,180 00
Mechanical Division:		
Superintendent A. O. Babendrier	72 50	
Superintendent E. G. Rost	1,667 50	
Chief Clerk, A. S. Bryan	127 50	
Chief Clerk, E. C. Schofield	892 50	
Stock Clerk, J. W. Starr	90 00	
Stock Clerk, A. S. Bryan	787 50	
First Assistant Clerk George J. Philbin	112 50	
First Assistant Clerk, Wm. P. Dee	712 50	
Second Assistant Clerk, J. Barnickle, Jr	780 00	
Yard Clerk, John Y. Harten	840 00	
Superintendent of Yard, George W. Reppert	787 50	
Superintendent of Yard, Daniel Maskell	112 50	
Superintendent of Hauling, C. P. Schlarb	840 00	
Watchman, D. P. Hayes	660 00	
Watchman, J. M. Cecil	660 00	
Hostler, D. Strube	777 50	
Assistant Hostler, S. Bateman	657 50	
Pump Engineer, J. T. Omohundro	206 96	
Pump Engineer, James H. Canoles	779 00	
Pump Engineer, W. H. Hyman	1,121 61	
Dynamo Engineer, John Payton	1,020 00	
Pump Engineer, F. E. Fitzgerald	1,140 00	
Dynamo Engineer, J. W. Brunner	1,020 00	
Conveyor Engineer, E. Omohundro	1,020 00	
Oiler, J. W. Granger	720 00	
Oiler, J. E. Murphy	720 00	
Fireman, H. Schmidt	715 00	
Fireman, P. Pendergast	780 00	
Fireman, J. H. Kraft	780 00	
Oiler, M. J. Rudolph	150 00	
Oiler, H. E. Baker	570 00	
Pump Engineer, Otto Boettger	1,140 00	
Pump Engineer, A. J. Benner	1,140 00	
Pump Engineer, U. G. Hanson	1,045 00	
Pump Engineer, T. E. Kelly	1,140 00	
Oiler, A. L. McBurney	720 00	
Oiler, E. Swissler	720 00	
Oiler, N. Kraning	720 00	
Fireman, J. Roache	780 00	
Fireman, A. Lemon	775 81	
Fireman, A. Malizoski	780 00	
Fireman, L. Wise	676 00	
Fireman, M. Ament, Jr	97 50	
Pump Engineer, L. M. Flaherty	1,020 00	
Pump Engineer, W. E. Moore	1,020 00	
Oiler, Charles Lancaster	720 00	
Oiler, M. Wade	720 00	
Oiler, W. F. Hurley	720 00	
Fireman, F. A. McFaddin	720 00	
Fireman, T. L. McGuirk	720 00	
Fireman, J. Slemacker, Jr	720 00	
County Division:		
Superintendent, William Benthall	2,000 00	
Clerk to Superintendent, A. J. Trageser	780 00	
Keeper Lake Montebello, Wm. L. Kenly	780 00	
Foreman Lake Montebello, J. L. Brennan	660 00	
Amounts carried forward	$83,735 78	$94,180 00

Amounts brought forward	$83,735 78	$94,180 00
Watchman Lake Montebello, A. F. Dames	600 00	
Keeper Lake Clifton, George Kelly	780 00	
Keeper Druid Lake, etc., John Vanhorn	780 00	
Keeper West Arlington, A. J. Forrest	390 00	
Keeper West Arlington, C. A. Hoffman	330 00	
Keeper Guilford Reservoir, John Devoy	720 00	
Keeper Lake Roland, John Boone	780 00	
Keeper Loch Raven, M. Dapprich	780 00	
Keeper Roland Standpipe, B. Plageman	720 00	
Gate Keeper Loch Raven, R. J. Foley	720 00	
Water Shed Inspector, Wm. M. Nelson	892 50	
Keeper Lake Ashburton, R. T. Richardson	690 00	
Superintendent of Dredge, John Malley	1,041 66	
Watchman of Dredge, W. W. Grace	600 00	
Total expenditures		93,559 94
Surplus of credit		$620 06
Balance to surplus, 1911		620 06

WATER ENGINEER'S DEPARTMENT A—VI (39).

Appropriation, expenses	$480,500 00
Transferred from Contingent Fund	1,000 00
Total credits	$481,500 00

EXPENDITURES.

Books, stationery and printing	$1,903 78	
Drawing material	190 07	
Furniture and fixtures	1,572 43	
Fuel	46,760 00	
Labor	311,276 25	
Hauling	2,162 85	
Cast-iron pipe	33,413 10	
Cast-iron fittings	4,706 74	
Special iron castings	5,883 96	
Wrought-iron pipe and fittings	1,289 09	
Service pipe	5,605 28	
Brass service pipe connections	5,510 11	
Brass castings	5,275 81	
Bar iron and steel	350 79	
Lead	4,962 97	
Lumber	2,214 53	
Rope and packing	657 82	
Grease, paints, oils, etc	2,381 88	
Rubber	1,079 44	
Bricks, stone and cement	955 53	
Sand, gravel and ashes	207 00	
Feed	2,432 34	
Current expenses	9,365 93	
Miscellaneous and emergencies	18,290 23	
City Engineer, repairing	8,845 13	
Dredging	4,206 94	
Total expenditures		481,500 00

COLLECTOR OF WATER RENTS AND LICENSES A—VI (39).

Appropriation, salaries..... $30,124 35

EXPENDITURES.

J. Spencer Clarke, Collector Water Rents and Licenses, 3 months.....	$625 00	
James J. Scully, Collector Water Rents and Licenses, 9½ months.....	1,979 17	
Otis C. Brownley, General Bookkeeper, 12 months..	1,600 00	
A. Stanley Wier, Cashier, 12 months.....	1,600 00	
James J. Scully, Chief Clerk, 2½ months.....	291 67	
Fred. W. Lustnauer, Chief Clerk, 9½ months.....	1,108 33	
Fred. W. Lustnauer, Ledger Clerk, 2½ months....	250 00	
Augustine A. Doyle, Ledger Clerk, 12 months.....	1,200 00	
William E. Martin, Ledger Clerk, 12 months.....	1,200 00	
James E. Burke, Ledger Clerk, 12 months.....	1,200 00	
Thomas F. Herr, Ledger Clerk, 12 months.....	1,200 00	
Matthew T. Valentine, Ledger Clerk, 12 months..	1,200 00	
Robert K. Lewis, Ledger Clerk, 12 months.....	1,200 00	
William K. Tubman, Ledger Clerk, 12 months.....	1,200 00	
Percy L. Reinhart, Ledger Clerk, 12 months.....	1,200 00	
Edward J. Edwards, Ledger Clerk, 12 months.....	1,200 00	
Charles H. Walker, Ledger Clerk, 12 months.....	1,200 00	
Edward A. Rohr, Ledger Clerk, 12 months.....	1,200 00	
Samuel A. Hart, Inspector and Bill Distributor, 12 months	1,000 00	
John T. Jones, Inspector and Bill Distributor, 12 months	1,000 00	
Joseph H. Gallagher, Inspector and Bill Distributor, 12 months	1,000 00	
Francis B. Payne, Inspector and Bill Distributor, 12 months	1,000 00	
Charles C. Brown, Inspector and Bill Distributor, 12 months	1,000 00	
Chester M. Gourley, Inspector and Bill Distributor, 12 months	1,000 00	
Robert E. Schaefer, Inspector and Bill Distributor, 2½ months	208 34	
Thomas A. Moran, Inspector and Bill Distributor, 9½ months	791 66	
Thomas M. Elliott, Inspector and Bill Distributor, 7½ months	625 00	
John V. McGraw, Inspector and Bill Distributor, 4½ months	375 00	
Robert E. Schaefer, Ledger Clerk, 9½ months....	950 00	
Mary Foley, Stenographer, 2½ months.....	108 34	
Mary R. Dean, Stenographer, 9½ months.....	411 66	
Total expenditures		30,124 17
Surplus of credit.....		$0 18
Balance to surplus, 1911.....		18

COLLECTOR OF WATER RENTS AND LICENSES A—VI (39).

Appropriation, expenses	$2,055 00

EXPENDITURES.

Stationery and printing	$887 68	
Postage	180 00	
Blankbooks	155 75	
Car tickets	140 00	
Telephone service	136 74	
Meals for clerks	111 00	
Advertising	66 90	
Directories	21 00	
Numbering machine	13 00	
Dater	10 00	
Repairs to telephone	9 65	
Rubber stamps	6 00	
Newspapers	5 67	
Miscellaneous	8 55	
Total expenditures		1,751 94
Surplus of credit		$303 06
Balance to surplus, 1911		303 06

INTEREST ON WATER LOAN A—VI (39).

Appropriation	$415,000 00

EXPENDITURES.

5 % on $5,000,000, due 1916	$250,000 00	
4 % on 500,000, due 1922	20,000 00	
4 % on 1,000,000, due 1926	40,000 00	
3½ % on 1,000,000, due 1943	35,000 00	
3½ % on 2,000,000, due 1945	70,000 00	
Total expenditures		415,000 00

SINKING FUND LOAN, 1913 A—VI (39).

Appropriation	$16,050 00
1½ per cent. on 1910 Water Receipts	15,813 59
Surplus of credit	$236 41
Balance to Water Board Revenue	236 41

WATER RENTS, ETC., A—VI (39).

Rents collected in 1910 for 1911	$8,391 42
Revenue, 1911	1,096,418 27
Total receipts	$1,104,809 69
Refunds	3,064 59
Paid into City Treasury	$1,101,745 10

NEW EQUIPMENT FOR STREET FOUNTAINS A—VI (39).

Appropriation		$600 00
EXPENDITURES.		
Bills paid and labor	$600 00	
Total expenditures		600 00

CHANGING DISTRIBUTION SYSTEM—HAMBURG STREET CROSSING A—VI (39).

Appropriation		$2,000 00
EXPENDITURES.		
Bills paid	$2,000 00	
Total expenditures		2,000 00

TEN-INCH MAIN, LAWRENCE AND CLEMENT STREETS A—VI (39).

Appropriation		$2,500 00
EXPENDITURES.		
Bills paid	2,500 00	
Total expenditures		2,500 00

SIX-INCH MAIN GARRISON AVENUE A—VI (39).

Appropriation		$2,700 00
EXPENDITURES.		
Bills paid and labor	$2,700 00	
Total expenditures		2,700 00

SIXTEEN-INCH MAIN, THIRTY-NINTH AND FORTIETH STREETS A—VI (39).

Appropriation		$7,500 00
Balance from 1910		14,289 00
Total credits		$21,789 00
EXPENDITURES.		
Bills paid and labor	$19,985 58	
Total expenditures		19,985 58
Surplus of credit		$1,803 42
Balance carried forward, 1912		1,803 42

NEW PUMPS AND BOILER, MOUNT ROYAL PUMPING STATION A—VI (39).

Appropriation		$200,000 00
EXPENDITURES.		
Bills paid	$312 25	
Total expenditures		312 25
Surplus of credit		$199,687 75
Balance transferred to 1912		199,687 75

TEN-INCH AND SIX-INCH MAIN, HARFORD ROAD A—VI (39).

Appropriation		$7,837 00
EXPENDITURES.		
Bills paid and labor	$7,837 00	
Total expenditures		7,837 00

SEVENTH STREET MAIN A—VI (39).

Appropriation		$40,250 00
Balance from 1910		1,468 29
Total credits		$41,718 29
EXPENDITURES.		
Bills paid and labor	$37,894 74	
Total expenditures		37,894 74
Surplus of credit		$3,823 55
Balance carried forward to 1912		3,823 55

CONSTRUCTION OF RESERVOIR A—VI (39).

Appropriation		$19,000 00
Balance brought forward		27,806 27
Cash from Park Board		318 16
Cash from Lane Bros. Co. and Jones		240 78
Total credits		$47,365 21
EXPENDITURES.		
Bills paid and labor	$41,175 18	
Total expenditures		41,175 18
Surplus of credit		$6,190 03
Balance carried forward to 1912		6,190 03

PURCHASE OF LAND, ETC., GUNPOWDER VALLEY A—VI (39).

Appropriation	$2,000,000 00

EXPENDITURES.

Bills paid and labor	$115,977 69	
Total expenditures		115,977 69
Surplus of credit		$1,884,022 31
Balance to Loan		1,884,022 31

NEW HIGH SERVICE RESERVOIR GATE HOUSE A—VI (39).

Balance brought forward from 1910	$1,224 17

EXPENDITURES.

Bills paid	1,224 17

CITY REAL ESTATE A—VI (40).

GROUND RENTS ON CITY PROPERTY.

Appropriation	$45,000 00

EXPENDITURES.

School No. 1	$354 00	
School No. 2	250 00	
School No. 3	350 00	
School No. 4	345 00	
School No. 5	600 00	
School No. 6	112 50	
School No. 8	221 34	
School No. 9	1,094 75	
School No. 10	200 00	
School No. 11	757 00	
School No. 12	268 00	
School No. 13	530 00	
School No. 14	840 00	
School No. 15	700 00	
School No. 16	790 00	
School No. 17	217 00	
School No. 18	114 66	
School No. 20	592 00	
School No. 21	320 00	
School No. 22	177 50	
School No. 23	150 00	
School No. 26	126 00	
School No. 27	274 50	
School No. 28	270 00	
School No. 29	570 00	
School No. 30	750 00	
School No. 31	228 00	
School No. 34	385 00	
Amounts carried forward	$11,587 25	$45,000 00

Amounts brought forward	$11,587 25	$45,000 00
School No. 42	244 44	
School No. 43	900 00	
School No. 44	600 00	
School No. 45	600 00	
School No. 46	800 00	
School No. 47	1,001 00	
School No. 48	700 00	
School No. 51	45 00	
School No. 58	22 50	
School No. 60	480 00	
School No. 61	1,155 00	
School No. 67	360 00	
School No. 68	240 00	
School No. 70	175 00	
School No. 71	19 00	
School No. 72	620 62	
School No. 73	25 00	
School No. 75	400 00	
School No. 76	350 00	
School No. 77	395 25	
School No. 78	480 00	
School No. 79	1,020 00	
School No. 81	620 00	
School No. 82	236 00	
School No. 91	315 00	
School No. 92	372 50	
School No. 93	1,300 00	
School No. 94	501 75	
School No. 96	480 00	
School No. 101	200 00	
School No. 106	192 00	
School No. 107	70 00	
School No. 108	134 00	
School No. 110	480 00	
School No. 111	130 00	
School No. 112	630 00	
School No. 115	50 00	
School No. 116	150 00	
Fourth Regiment Armory	1,188 00	
Eastern Female High School (Old)	615 90	
Baltimore City College	4,600 00	
Polytechnic Institute	220 00	
Colored High School	1,147 50	
Engine House No. 1	105 00	
Engine House No. 2	62 50	
Engine House No. 3	150 00	
Engine House No. 6	62 00	
Engine House No. 7	51 00	
Engine House No. 11	123 75	
Engine House No. 12	150 00	
Hook and Ladder No. 1	100 00	
Hook and Ladder No. 7	75 00	
Hook and Ladder No. 8	61 50	
Chemical Company No. 2	72 00	
Lot on Belair road	40 00	
Northeast Market	1,200 00	
Cross Street Market	974 00	
Amounts carried forward	$39,079 46	$45,000 00

Amounts brought forward	$39,079 46	$45,000 00
Lexington Market	228 00	
Central Police Station	120 00	
City Hall	56 00	
Lot on Stiles street	130 00	
Property Yard	540 00	
Lot, Chester street and Ashland avenue	829 75	
Lot, Pennsylvania avenue and Biddle street	1,500 00	
Lot, South Frederick street	258 00	
Central Police Station (temporary)	600 00	
Street Cleaning Stable, East Pratt street	175 00	
Lot on Philpot lane, now Pratt street	40 00	
Total expenditures		43,586 21
Surplus of credit		$1,413 79
Balance to surplus, 1911		1,413 79

RENTALS FROM CITY PROPERTY A—VI (40).

RECEIPTS.

Baltimore ,Chesapeake and Atlantic Railway Co.	$3,618 00	
Maryland, Delaware and Virginia Railway Co.	2,047 50	
A. S. J. Owens, State's Attorney, Court House	1,500 00	
P. C. Dugan and Nephew	885 83	
M. Shugar	673 15	
Maryland Institute	500 00	
J. H. Pinning	162 50	
N. Frank & Son	160 00	
E. D. Loane & Co	150 00	
Bennett & Co	110 00	
Bolgiano & Sons	100 00	
Marine Engineer Co	125 00	
Charles Miller	96 00	
William Skinner	91 60	
Mrs. M. E. Beck	50 38	
John Garvey	60 00	
Moore & Brady	50 00	
Charles Wright, 820 Scott street	40 00	
F. Saumenig	32 00	
Andrew Freund	31 20	
Hinkley, Spamer & Hiskey	15 00	
H. McWilliams	25 00	
A. Pielert	10 00	
Free Public Bath Commission (Greenmount avenue)	7 25	
H. M. Hutton	5 00	
R. C. Hardesty	3 00	
Total receipts		$10,548 44

EXPENDITURES.

Repairs to property, etc., Hanover, Wyeth and Scott streets, Welcome alley	$93 49	
Excavating property, etc., Hanover, Wyeth and Scott streets, Welcome alley	24 00	
Amounts carried forward	$117 49	$10,548 44

Amounts brought forward	$117 49	$10,548 44
Paperhanger for property Hanover, Wyeth and Scott streets, Welcome alley	28 00	
Commission	114 81	
Total expenditures		260 30
Net balance		$10,288 14
Balance paid into City Treasury		10,288 14

SALE OF CITY PROPERTY A—VI (40).

RECEIPTS.

Maryland Wrecking Co	$275 00
John T. Donohue	500 00
Total receipts	$775 00

EXPENDITURES.

E. Raine	$17 07	
E. T. Newell & Co	268 50	
Total expenditures		285 57
Surplus or credit		$489 43
Paid into City Treasury		489 43

MARKETS A—VI (41).

ASSISTANT MARKET MASTERS.

Appropriation, salaries $6,666 65

EXPENDITURES.

Wm. S. Byles, Belair Market, December 15, 1910, to April 17, 1911	$342 50	
Wm. J. Ningard, Belair Market, April 19, 1911, to May 17, 1911	76 05	
James Dean, Belair Market, May 18 to December 15, 1911	518 95	
George Bewig, Canton Market	468 75	
Charles H. Schenkel, Centre Market	625 00	
Timothy M. Kelly, Cross-street Market	729 16	
Paul J. Prodoehl, Fell's Point Market	625 00	
John J. Moran, Hanover Market, December 15, 1910, to July 31, 1911	262 50	
John C. Dietz, Hanover Market, August 1, 1911, to December 15, 1911	206 25	
George N. Schaefer, Hollins Market	520 83	
Louis F. Kuhl, Lafayette Market	468 75	
Thomas H. Patterson, Lexington Market	937 50	
George W. Champness, Northeast Market	416 66	
George W. Wells, Richmond Market	468 75	
Total expenditures		$6,666 65

MARKET CLEANERS FOR THE DIFFERENT MARKETS A—VI (41).

Appropriation		$8,980 00
EXPENDITURES.		
Belair Market	$701 85	
Canton Market	200 00	
Cross-street Market	420 00	
Fell's Point Market	660 00	
Hanover Market	420 00	
Hollins Market	499 92	
Lafayette Market	420 00	
Lexington Market	1,500 00	
Northeast Market	300 00	
Richmond Market	420 00	
Centre Market:		
Cleaners	1,200 00	
Engineer	900 00	
Fireman	720 00	
Watchman	600 00	
Total expenditures		8,961 77
Surplus of credit		$18 23
Balance to surplus, 1911		18 23

COMPARATIVE STATEMENT SHOWING RECEIPTS AND MISCELLANEOUS EXPENDITURES OF THE DIFFERENT MARKETS A—VI (41).

	1911.		1910.	
	Dr.	*Cr.*	*Dr.*	*Cr.*
Belair Market	$56 05	$11,041 90	$75 12	$11,859 45
Canton Market	27 40	493 80	51 17	501 75
Centre Market	3,118 37	697 00	3,036 99	1,072 50
Wholesale Produce	.....	3,166 66	.....	4,562 00
Wholesale Fish	.....	11,000 00	.....	10,100 00
Cross Street Market	68 32	4,297 20	44 03	4,336 35
Fell's Point Market	50 58	8,290 60	98 54	8,464 15
Hanover Market	77 00	2,472 50	67 25	2,459 60
Hollins Market	70 20	3,702 00	83 60	3,698 20
Lafayette Market	33 00	3,226 65	31 80	3,283 20
Lexington Market	330 91	17,209 40	336 85	17,019 90
Northeast Market	24 05	2,989 40	23 86	3,098 65
Richmond Market	58 30	3,896 55	61 15	3,996 60
Non-apportioned receipts, 1907-8-9	.....	445 75	.....	.....
Gross	$3,914 18	$72,929 41	$3,910 36	$74,452 35
Exp. cleaning, fuel, etc.	.....	3,914 18	.....	3,910 36
Net receipts	.....	$69,015 23	.....	$70,541 99

TABLES OF THE RECEIPTS OF THE MARKETS A—VI (41).

Belair Market, December 30, 1911.

	Licenses	*Rents*	*Total*, 1911	*Total*, 1910
Butcher stalls	$630 00	$2,027 50	$2,657 50	$3,000 00
Permanent and eave stalls	1,945 00	578 00	2,523 00	2,605 00
Movable stalls	170 00	113 00	283 00	291 00
Fish stalls	100 00	115 00	215 00	221 00
Street stalls	1,547 50	.....	1,547 50	1,573 50
Per diems	.....	.....	3,815 90	4,168 95
			$11,041 90	$11,859 45

JAS. DEAN, *Ass't Market Master.*

Canton Market, December 30, 1911.

	Licenses	*Rents*	*Total*, 1911	*Total*, 1910
Butcher stalls	$40 00	$77 00	$117 00	$92 00
Permanent and eave stalls	130 00	76 00	206 00	229 00
Fish stalls	$10 00	4 00	14 00	7 00
Space stalls	.....	.....	.....	3 50
Per diems	.....	.....	156 80	170 25
			$493 80	$501 75

HENRY BEWIG, *Ass't Market Master.*

CENTRE MARKETS.

Retail, December 30, 1911.

	Licenses	*Rents*	*Total*, 1911	*Total*, 1910
Fruit	$15 00	$105 00	$120 00	$120 10
Butcher	5 00	45 00	50 00	77 50
Space, C. L. Applegart Co.	.....	500 00	500 00	875 00
Sale of material	.....	.....	900 00	.....
			$679 00	$1,072 60

Wholesale Fish.

Rentals	$10,000 00	$10,100 00

Wholesale Produce.

Rentals	$4,016 66	$4,562 00
Rentals C. N. Merritt's office	150 00	.....
Electric Lights C. N. Merritt's office	18 00	.....
	$4,184 66	$4,562 00

CHARLES M. SCHENKEL, *Ass't Market Master.*

Cross Street Market, December 30, 1911.

	Licenses	*Rents*	*Total, 1911*	*Total, 1910*
Butcher stalls	$320 00	$417 50	$737 50	$704 75
Permanent and eave stalls	822 50	.....	822 50	827 50
Fish stalls	80 00	65 00	145 00	170 00
Street stalls	670 00	.....	670 00	665 00
Per diems	.....	.....	1,922 20	1,969 10
			$4,297 20	$4,336 35

Fells Point Market, December 30, 1911.

	Licenses	*Rents*	*Total, 1911*	*Total, 1910*
Butcher stalls	$355 00	$1,260 00	$1,615 00	$1,655 00
Permanent and eave stalls	645 00	885 00	1,530 00	1,554 00
Space stalls	655 00	835 00	1,490 00	1,485 00
Movable stalls	185 00	84 00	269 00	285 00
Fish stalls	95 00	76 00	171 00	180 00
Street stalls	450 00	.....	450 00	495 00
Store room	.....	6 00	6 00	18 00
Per diems	.....	.....	2,759 60	2,792 15
			$8,290 60	$8,464 15

PAUL J. PRODOEHL, *Ass't Market Master.*

Hanover Market, December 30, 1911.

	Licenses	*Rents*	*Total, 1911*	*Total, 1910*
Butcher stalls	$150 00	$563 00	$713 00	$710 00
Permanent and eave stalls	472 60	241 00	713 00	700 50
Fish stalls	55 00	36 00	91 00	64 00
Street stalls	170 00	.....	170 00	180 00
Per diems	.....	.....	785 50	805 10
			$2,472 50	$2,459 60

JOHN C. DIETZ, *Ass't Market Master.*

Hollins Market, December 30, 1911.

	Licenses	*Rents*	*Total, 1911*	*Total, 1910*
Butcher stalls	$205 00	$495 00	$700 00	$720 00
Permanent and eave stalls	370 00	.....	370 00	375 00
Space stalls	195 00	.....	195 00	180 00
Movable stalls	25 00	.....	25 00	25 00
End stalls	55 00	.....	55 00	60 00
Fish stalls	40 00	.....	40 00	40 00
Street stalls	988 00	.....	988 00	963 00
Per diems	.....	.....	1,329 00	1,335 20
			$3,702 00	$3,698 20

GEORGE N. SCHAEFER, *Ass't Market Master.*

Lafayette Market, December 30, 1911.

	Licenses	*Rents*	*Total, 1911*	*Total, 1910*
Butcher stalls	$245 00	$345 00	$590 00	$600 00
Permanent and eave stalls	710 00	260 00	970 00	980 00
End stalls	55 00	.....	55 00	60 00
Space stalls	55 00	.....	55 00	55 00
Street stalls	135 00	.....	135 00	145 00
Per diems	.....	.....	1,421 65	1,443 20
			$3,226 65	$3,283 20

LOUIS KUHL, *Ass't Market Master.*

Lexington Market, December 30, 1911.

	Licenses	*Rents*	*Total, 1911*	*Total, 1910*
Butcher stalls	$570 00	$2,175 00	$2,745 00	$2,560 00
Permanent and eve stalls	2,235 00	1,343 00	3,578 00	3,520 00
Movable stalls	215 00	86 00	301 00	301 00
Fruit and vegetable stalls	280 00	392 00	672 00	667 00
Fish stalls	250 00	100 00	350 00	346 50
Street stalls	3,087 50	.....	3,087 50	3,130 00
Per diems	.....	.....	6,475 90	6,495 40
			$17,209 40	$17,019 90

THOMAS H. PATERSON, *Ass't Market Master.*

Northeast Market, December 30, 1911.

	Licenses	*Rents*	*Total, 1911*	*Total, 1910*
Butcher stalls	$105 00	$438 50	$543 50	$307 50
Permanent and eave stalls	165 00	102 00	267 00	371 00
Space stalls	545 00	298 00	843 00	960 00
End stalls	30 00	12 00	42 00	47 50
Fish stalls	20 00	8 00	28 00	76 00
Street stalls	20 00	.....	20 00	19 00
Per diems	.....	.....	1,245 90	1,317 65
			$2,989 40	$3,098 65

GEORGE W. CHAMPNESS, *Ass't Market Master.*

Richmond Market, December 30, 1911.

	Licenses	*Rents*	*Total, 1911*	*Total, 1910*
Butcher stalls	$205 00	$430 50	$635 50	$654 25
Permanent and eave stalls	275 00	258 00	533 00	551 50
Aisle stalls	60 00	.....	60 00	60 00
Movable stalls	30 00	6 00	36 00	42 00
Fish stalls	80 00	80 00	160 00	180 00
Space stalls	325 00	34 50	359 50	354 00
Street stalls	202 50	.....	202 50	217 50
Per diems	.....	.....	1,710 05	1,737 35
Restaurant	.....	.....	200 00	200 00
			$3,896 55	$3,996 60

GEORGE W. WELLS, *Ass't Market Master.*

MARKETS.	December, 1910.	January, 1911.	February, 1911.	March, 1911.	April, 1911.	May, 1911.	June, 1911.	July, 1911.	August, 1911.	September, 1911.	October, 1911.	November, 1911.	Total, 1911.	Total, 1910.
Belair	$343 85	$315 95	$301 75	$340 65	$323 80	$318 60	$307 95	$315 75	$315 20	$328 20	$304 80	$299 40	$3,815 90	$4,168 95
Canton ...	16 10	11 00	10 70	11 50	14 00	13 20	13 00	13 60	13 70	15 60	12 50	11 90	156 80	170 25
Cross	156 00	132 20	127 50	137 60	158 20	160 00	164 70	182 70	175 40	195 10	171 80	161 80	1,923 00	1,969 10
Fells Point	239 65	214 75	201 20	224 85	233 20	234 00	232 75	231 40	241 30	248 80	235 55	222 15	2,759 60	2,792 15
Hanover ..	61 10	55 30	54 10	59 60	60 00	68 00	70 40	72 80	73 80	75 90	69 30	65 20	785 50	805 10
Hollins ...	108 70	80 80	82 70	98 60	110 00	115 50	111 10	127 80	125 90	127 70	113 80	126 40	1,329 00	1,335 20
Lafayette .	126 30	102 45	99 15	106 65	118 05	113 05	123 05	139 20	125 35	126 70	122 05	119 65	1,421 65	1,443 20
Lexington .	555 30	457 40	462 90	535 00	549 00	566 50	554 40	551 00	572 90	557 40	562 00	552 10	6,475 90	6,495 40
Northeast .	103 10	89 35	85 35	90 00	103 30	104 45	109 75	113 80	117 60	120 30	108 25	100 65	1,245 90	1,317 65
Richmond .	162 00	136 60	127 75	141 70	139 25	144 65	146 10	142 25	144 15	140 10	143 20	142 30	1,710 05	1,737 35
Totals..	$1,872 10	$1,595 80	$1,553 10	$1,746 15	$1,808 80	$1,837 95	$1,833 20	$1,890 30	$1,905 30	$1,935 80	$1,843 25	$1,801 55	$21,623 30	$22,234 35

HOSE FOR MARKETS A—VI (41).

Apropriation	$800 00
From contingent fund	43 45
Total credit	$843 45

EXPENDITURES.

Belair Market	$26 00	
Centre Market	69 40	
Canton Market	80 00	
Cross Street Market	73 80	
Fell's Point Market	83 00	
Hanover Market	80 00	
Hollins Market	81 25	
Lexington Market	136 00	
Lafayette Market	80 00	
Northeastern Market	80 00	
Richmond Market	54 00	
Total expenditures		843 45

PUBLIC HALLS A VI—(41).

Cross Street Hall.

	1911.		1910.	
	Dr.	*Cr.*	*Dr.*	*Cr.*
By rent	.....	$216 50	.....	$223 50
Expenses, cleaning, etc...	$309 08	.....	$171 24	.....
Net revenue	.....	.....	52 26	.....
Net loss	.....	92 58	.....	.....
	$309 08	$309 08	$223 50	$223 50

Broadway Hall.

	1911.		1910.	
	Dr.	*Cr.*	*Dr.*	*Cr.*
By rent	.....	.....	.....	$13 00
Expenses, cleaning, etc...	$56 69	.....	$41 42	.....
Net loss	.....	$56 69	.....	28 42
	$56 69	$56 69	$41 42	$41 42

Hollins Hall.

Occupied by Boys' Brigade.

Richmond Hall.

Occupied by Naval Reserves.

Historical and Financial Data Pertaining

TO THE

Municipal Markets of the City of Baltimore

Prepared from available information by

W. T. CHILDS, Deputy Comptroller

BELAIR MARKET.

Historical.

Lot.

On October 6, 1818, Nicholas Rogers et al. made deed to the city conveying lot 100 feet southeast side of Gay street (then Harford), running southeast to Friendship street, to be used for a market, and no other purpose whatever. Deed recorded in W. G. 147.322. The lot was really dedicated to the city, the consideration being only $5. On May 26, 1828, five feet additional on each side of lot, conveyed in 1818, was donated to the city on condition that no further ground of grantors be condemned for widening the market.

By an Act of 1844, Chapter 224, authority was given the City Court to condemn ground from Gay to Hillen streets. By Resolutions 108 and 116, 1846, $30,471.29 was appropriated to pay the expenses of the assessors and for ground condemned.

Interest to December, 1850	$2,900	00
Less old material sold	1,181	09
	$1,718	91
Cost of ground, etc	30,471	29
Total	$32,190	20

Ordinances 47, 1852, and 6, 1853, provided for extending market, and under these ordinances additional ground was bought, as follows:

1. An assignment from Jacob Larkin, dated May 8, 1853, and recorded in E. D. 42: 96. Consideration $2,500.

2. An assignment from R. W. Glass, dated July 8, 1853, and recorded in E. D. 42: 103. Consideration $3,000.

3. Deed from Eleanor A. Rogers, dated July 7, 1853, and recorded in E. D. 42: 102. Consideration $2,083.33.

4. Deed from Harriet M. Rogers et al., dated June 3, 1853, and recorded in E. D. 42: 101. Consideration $900.

5. Deed from Harriet M. Rogers et al., dated June 27, 1853, and recorded in E. D. 42: 99. Consideration $10,500.

Under Resolution 332, 1868, additional ground was bought for extending market as follows:

Assignment from Sophia M. F. Farber, dated April 7, 1870, and recorded in G. R. 463: 129. Consideration $7,000, and subject to an annual ground rent of $207 on February 1st and August 1st.

Total cost of ground, $58,173.53.

Structure.

Prior to December, 1850, there was expended for building market houses, repairs, etc., on original lot	$9,029	27
By ordinances passed in 1847 and 1848, there was paid for erecting market houses, etc	13,792	37
1853—Ordinance 6 and Resolution 241, new building	8,942	00
1865—Ordinance 32, additional building	5,000	00
1870—Resolution 130, rebuilding	3,800	00
1851-1886—Hose	1,050	00
1853-1889—Repairs, etc	22,140	00
1891—Resolution 125, and 1892 Resolution 97, paving	7,850	00
Total	$71,603	64

Location—Forrest, from Hillen to Orleans streets.

BELAIR MARKET.

Debits.							Credits.			
Cost of Lot.	Cost of Structure.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
$35,088 33	$19,260 45	.....	.....	.....	.....	.....	$54,348 78	.....	.....	.....	.....
.....	.....	$400 00	.....	.....	.....	.....	400 00	1857	$4,798 41	.....	$4,798 41
.....	.....	400 00	.....	.....	$282 55	.....	682 55	1858	4,933 61	.....	4,933 61
.....	.....	400 00	.....	.....	346 82	.....	746 82	1859	5,315 57	.....	5,315 57
.....	.....	400 00	.....	.....	451 03	.....	851 03	1860	5,435 17	.....	5,435 17
.....	.....	400 00	.....	.....	332 75	.....	732 75	1861	5,012 63	.....	5,012 63
.....	.....	400 00	.....	.....	441 32	.....	841 32	1862	5,714 09	.....	5,714 09
.....	.....	400 00	.....	.....	359 72	.....	759 72	1863	5,895 77	.....	5,895 77
.....	.....	450 00	$300 00	.....	375 96	.....	1,125 96	1864	6,184 83	.....	6,184 83
.....	.....	450 00	300 00	.....	756 02	.....	1,506 02	1865	6,551 64	.....	6,551 64
.....	.....	450 00	300 00	.....	*	.....	750 00	1866	6,822 43	$4,100 00	10,922 43
.....	.....	450 00	300 00	.....	*	.....	750 00	1867	7,029 41	.....	7,029 41
.....	.....	450 00	300 00	.....	1,463 11	.....	2,213 11	1868	8,856 08	.....	8,856 08
.....	.....	450 00	300 00	.....	773 17	$2,331 79	3,854 96	1869	9,626 00	.....	9,626 00
.....	.....	450 00	300 00	.....	1,297 09	*	2,047 09	1870	9,484 13	.....	9,484 13
.....	.....	450 00	300 00	.....	815 37	8,878 50	10,443 87	1871	8,004 29	.....	8,004 29
.....	.....	450 00	300 00	.....	797 83	2,018 25	3,506 08	1872	10,500 93	10,893 82	21,394 75
.....	.....	700 00	300 00	.....	591 86	257 50	1,849 36	1873	8,035 31	5,536 22	13,571 53
.....	.....	700 00	300 00	.....	1,146 42	*	2,146 42	1874	7,169 06	2,758 32	9,927 38
.....	.....	700 00	300 00	.....	703 47	*	1,703 47	1875	8,771 55	1,551 93	10,323 48
.....	.....	700 00	300 00	.....	1,439 75	*	2,439 75	1876	9,089 96	6 84	9,096 80
.....	.....	700 00	300 00	.....	3,076 49	*	4,076 49	1877	10,466 95	3,123 08	13,590 03
.....	.....	700 00	300 00	.....	961 30	*	1,961 30	1878	8,123 50	.....	8,123 50
.....	.....	700 00	480 00	.....	591 10	*	1,771 10	1879	8,272 55	.....	8,272 55
.....	.....	700 00	480 00	.....	693 25	*	1,873 25	1880	8,186 40	.....	8,186 40
.....	.....	700 00	480 00	.....	554 88	*	1,734 88	1881	7,892 10	.....	7,892 10
.....	.....	700 00	480 00	.....	545 62	1,174 00	2,899 62	1882	8,150 50	.....	8,150 50
.....	.....	700 00	480 00	.....	673 69	*	1,853 69	1883	8,182 75	.....	8,182 75
.....	.....	700 00	480 00	.....	645 90	2,649 66	4,475 56	1884	8,246 50	.....	8,246 50
.....	.....	700 00	480 00	.....	631 72	*	1,811 72	1885	8,433 25	.....	8,433 25
.....	.....	700 00	480 00	.....	640 10	*	1,820 10	1886	8,366 75	.....	8,366 75
.....	.....	700 00	480 00	.....	539 48	*	1,719 48	1887	8,266 50	.....	8,266 50
.....	.....	700 00	480 00	.....	517 93	*	1,697 93	1888	8,315 25	.....	8,315 25
.....	.....	700 00	480 00	.....	605 66	*	1,785 66	1889	7,948 80	.....	7,948 80
.....	.....	700 00	480 00	.....	530 89	800 00	2,510 89	1890	8,520 50	.....	8,520 50
.....	.....	700 00	480 00	.....	533 93	6,500 00	8,213 93	1891	8,222 70	.....	8,222 70
.....	.....	700 00	480 00	.....	553 26	1,214 39	2,947 65	1892	8,099 90	.....	8,099 90
.....	.....	700 00	480 00	.....	511 80	*	1,691 80	1893	7,006 50	.....	7,006 50
.....	.....	700 00	480 00	.....	530 80	*	1,710 80	1894	7,353 95	.....	7,353 95
.....	.....	700 00	480 00	.....	540 89	*	1,720 89	1895	7,606 20	.....	7,606 20
.....	.....	700 00	480 00	.....	511 72	*	1,691 72	1896	9,737 80	.....	9,737 80
.....	.....	700 00	480 00	.....	506 00	*	1,686 00	1897	9,978 93	.....	9,978 93
.....	.....	900 00	480 00	.....	506 70	*	1,886 70	1898	29,907 53	.....	29,907 53
.....	.....	900 00	480 00	.....	537 21	*	1,917 21	1899	10,243 85	.....	10,243 85
.....	.....	900 00	480 00	.....	522 15	240 95	2,143 10	1900	10,032 10	62 00	10,094 10
.....	.....	900 00	480 00	.....	529 50	199 54	2,109 04	1901	9,956 90	8 00	9,964 90
.....	.....	900 00	480 00	$58 40	554 43	1,258 26	3,251 09	1902	10,482 85	7 00	10,489 85
.....	.....	900 00	480 00	63 40	517 79	71 17	2,032 36	1903	10,365 70	8 00	10,373 70
.....	.....	900 00	480 00	.....	549 15	562 00	2,491 15	1904	11,116 30	10 00	11,126 30
.....	.....	900 00	720 00	63 40	574 55	2,519 34	4,777 29	1905	10,721 30	81 00	10,802 30
.....	.....	900 00	720 00	.....	762 60	6,959 20	9,341 80	1906	10,863 35	.....	10,863 35
.....	.....	900 00	720 00	98 10	783 96	173 63	2,675 69	1907	11,347 55	44 00	11,391 55
.....	.....	900 00	720 00	1 25	69 65	2,319 68	4,010 58	1908	11,822 85	.....	11,822 85
.....	.....	900 00	720 00	80 25	56 98	76 97	1,834 20	1909	11,982 64	.....	11,982 64
.....	.....	900 00	720 00	29 20	75 12	269 95	1,994 27	1910	11,859 45	.....	11,859 45
.....	.....	900 00	720 00	26 00	56 05	457 21	2,159 26	1911	11,041 90	.....	11,041 90
$35,088 33	$19,260 45	$36,950 00	$22,020 00	$420 00	$33,366 49	$40,931 99	$188,037 26	Total.....	$490,353 42	$28,190 21	$518,543 63

*Figures not obtainable.

CANTON MARKET.

Historical.

Lot.

The lot for the Canton Market House was donated to the Mayor and City Council of Baltimore in the year 1859, by deed from the Canton Company, recorded in G. E. S. 180-283.

The Canton Market House was erected under Ordinance No. 99, July 14, 1859, which provides that on the execution of a deed to the Mayor and City Council of Baltimore by the Canton Company of Baltimore of all that piece or parcel of ground in the city of Baltimore lying in the centre of O'Donnell street, and seventy-five feet in width, and extending from Patuxent street a distance of about three hundred and forty feet eastwardly to Potomac street, to be used forever as a public market, the City Commissioner is authorized and directed to have constructed on the east end of the lot a market house (similar to the market house on the ———— of the Lexington Market), to be sixty feet wide and one hundred and fifty feet long; said market house to be built of the best materials and in a good and workmanlike manner—the contract to be awarded to the lowest responsible bidder, after advertising in two of the daily papers for the space of two weeks, according to the ordinances of the city.

It further provides that said Canton market shall in all respects be governed by the ordinances of the Mayor and City Council in relation to markets.

The Canton Company engages that it will not, at any time, rent or lease any part of its property to be used as a market house (Code of 1869).

By Ordinance No. 106, June 19, 1871, the Comptroller was authorized and directed to lease to the Canton Company of Baltimore the property known as the Canton Market, situated on O'Donnell street.

Structure.

City Commissioner authorized and directed to construct market house under Ordinance No. 99, July 14, 1859. No record of cost and expenses and receipts of market house until 1885.

By Ordinance No. 21, March 24, 1885, $9,000 was appropriated, to be provided for in the levy for 1885, to construct market house on the lot owned by the city, bounded by O'Donnell, Patuxent and Potomac streets.

Cost of structure, $8,613.15.

Location—O'Donnell street, from Patuxent to Potomac streets.

Dimensions—75x340 feet.

CANTON MARKET.

Debits.							Credits.			
Cost of Lot.	Cost of Structure.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
Donated	$8,613 15	.....	.....	.....	$135 80	.....	$8,748 95	1885	.....	$1,615 00	$1,615 00
(1859)....	.....	$400 00	.....	.....	373 10	*	773 10	1886	$544 47	.....	544 47
.....	.....	400 00	.....	.....	181 15	*	581 15	1887	541 60	.....	541 60
.....	.....	400 00	.....	.....	158 20	*	558 20	1888	418 40	.....	418 40
.....	.....	400 00	.....	.....	185 65	*	585 65	1889	439 90	.....	439 90
.....	.....	400 00	.....	.....	173 42	*	573 42	1890	365 50	.....	365 50
.....	.....	400 00	.....	.....	159 31	*	599 31	1891	371 50	.....	371 50
.....	.....	400 00	.....	.....	192 21	*	592 21	1892	514 10	.....	514 10
.....	.....	400 00	.....	.....	174 50	*	574 50	1893	579 80	.....	579 80
.....	.....	400 00	.....	.....	174 00	*	574 00	1894	549 00	.....	549 00
.....	.....	400 00	.....	.....	176 75	*	576 75	1895	474 10	.....	474 10
.....	.....	400 00	.....	.....	178 70	*	578 70	1896	536 10	.....	536 10
.....	.....	400 00	.....	.....	175 16	*	575 16	1897	473 55	.....	473 55
.....	.....	450 00	$200 00	.....	176 06	*	826 08	1898	493 20	.....	493 20
.....	.....	450 00	200 00	.....	247 27	*	897 27	1899	487 60	.....	487 60
.....	.....	450 00	200 00	.....	206 54	$29 82	886 36	1900	441 90	.....	441 90
.....	.....	450 00	200 00	.....	206 82	95 54	952 36	1901	473 10	.....	473 10
.....	.....	450 00	200 00	$58 40	202 40	39 00	949 80	1902	449 20	.....	449 20
.....	.....	450 00	200 00	.....	192 37	148 55	990 92	1903	464 30	.....	464 30
.....	.....	450 00	200 00	.....	205 04	425 00	1,280 04	1904	508 70	.....	508 70
.....	.....	450 00	200 00	.....	205 04	797 06	1,652 10	1905	505 60	.....	505 60
.....	.....	450 00	200 00	.....	205 04	797 06	1,652 10	1906	585 00	.....	585 00
.....	.....	450 00	200 00	34 70	207 94	63 45	956 09	1907	612 50	.....	612 50
.....	.....	450 00	200 04	4 75	29 23	181 09	865 11	1908	551 00	.....	551 00
.....	.....	450 00	200 04	34 70	18 36	69 20	772 30	1909	566 65	.....	566 65
.....	.....	430 82	195 15	.....	51 17	.....	677 14	1910	501 75	.....	501 75
.....	.....	468 75	200 00	80 00	27 40	.....	776 15	1911	493 80	.....	493 80
.....	$8,613 15	$11,099 57	$2,795 23	$212 55	$4,618 65	$2,645 77	$29,984 92	Totals..	$12,942 32	$1,615 00	$14,557 32

*Figures not available.

CENTRE MARKET.

Historical.

Lot.

There seems to be no record of the cost of the ground on which the old "Marsh Market" was located. The property of the present market was acquired for the city by the Burnt District Commission. The report of the Burnt District Commission, March 11, 1907 (page 7) shows that the cost of acquiring the property, recording deeds, etc., was $161,978.87.

Structure.

By Act of 1773, Chapter 23, the market was established.

By Act of 1784, Chapter 62, Commissioners were appointed to build a new market house.

From 1797 to 1850, the cost of improvements amounted to....		$35,998 01
Other appropriations:		
Ordinance 113 and Resolution 161, 1859, new market house...		12,035 00
1850-1890, hose.....		811 00
1850-1890, repairs, sheds, etc.....		15,957 18
Ordinance 157, 1904, appropriated $435,000 (Burnt District Fund for new building, etc.		
An additional appropriation of $65,000 was made in 1906, and $648.52 taken from the contingent fund in 1908. Expenditures were as follows:		
1904	$54 25	
1905	26,218 65	
1906	365,658 40	
1907	98,554 20	
1908	10,163 02	
		500,648 52
Resolution 87, 1890, paving Pratt and Lombard streets.....		3,000 00
Paving, 1908, Pratt to Lombard street.....		17,461 04
Total		$585,910 75

Location—Baltimore to Pratt street, west of Jones' Falls.

CENTRE MARKET.

Debits.								Credits.		
Cost of Lot.	Cost of Structure.	Salary of Keeper, Engineer, Fireman, Watchman.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Total.
Unknown.	*$33,151 13							$33,151 13			
			b$700 00			$401 12		1,101 12	1858	10,293 85	10,293 85
			b 700 00			463 51		1,163 51	1859	10,647 86	10,647 86
			b 700 00			567 96		1,267 96	1860	10,119 75	10,119 75
			b 700 00			448 80		1,148 80	1861	9,748 76	9,748 76
			b 700 00			619 63		1,319 63	1862	12,552 75	12,552 75
			b 700 00			484 52		1,184 52	1863	10,778 17	10,778 17
		k$500 00	c 800 00	$480 00		565 14		2,345 14	1864	12,155 98	12,155 98
		k 500 00	c 800 00	480 00		2,278 47		4,058 47	1865	13,094 00	13,094 00
		k 500 00	c 800 00	480 00				1,780 00	1866	12,899 99	12,899 99
		k 500 00	c 800 00	480 00				1,780 00	1867	12,333 87	12,333 87
		k 500 00	c 800 00	480 00		1,225 57		3,005 57	1868	12,349 51	12,349 51
		k 500 00	c 800 00	480 00		993 47		2,773 47	1869	11,836 39	11,836 39
		k 500 00	c 800 00	600 00		682 71		2,582 71	1870	11,942 05	11,942 05
		k 500 00	c 800 00	600 00		930 88		2,830 88	1871	9,245 60	9,245 60
		k 500 00	c 800 00	600 00		960 10		2,860 10	1872	12,406 74	12,406 74
		k 500 00	c 800 00	600 00		617 23		2,517 23	1873	9,243 43	9,243 43
		k 500 00	c 800 00	600 00		1,490 34		3,390 34	1874	7,651 44	7,651 44
		k 500 00	c 800 00	600 00		668 74		2,568 74	1875	6,677 08	6,677 08
		k 500 00	c 800 00	600 00		795 50		2,695 50	1876	9,620 20	9,620 20
		k 500 00	c 800 00	600 00		4,461 82		6,361 82	1877	9,185 54	9,185 54
		k 500 00	c 800 00	600 00		848 54		2,748 54	1878	8,792 03	8,792 03
		k 500 00	c 800 00	600 00		856 43		2,756 43	1879	8,335 18	8,335 18
		k 500 00	c 800 00	600 00		678 90		2,578 90	1880	8,002 40	8,002 40
		k 500 00	c 800 00	600 00		760 37		2,660 37	1881	7,799 75	7,799 75
		k 500 00	c 800 00	600 00		662 30		2,562 30	1882	7,675 72	7,675 72
		k 500 00	c 800 00	600 00		653 50		2,553 50	1883	7,698 40	7,698 40
		k 500 00	c 800 00	600 00		738 35		2,638 35	1884	7,771 30	7,771 30
		k 500 00	c 800 00	600 00		741 95		**2,641 95**	1885	7,678 95	7,678 95
		k 500 00	c 800 00	600 00		703 23	$2,000 00	4,603 23	1886	7,400 15	7,400 15
		k 500 00	c 800 00	600 00		668 26	2,039 37	4,607 63	1887	8,332 15	8,332 15
		k 500 00	c 800 00	600 00		668 10		2,568 10	1888	8,216 80	8,216 80
		k 500 00	c 800 00	600 00		654 00		2,554 00	1889	9,015 43	9,015 43
		k 500 00	c 800 00	600 00		802 16	5,000 00	7,702 16	1890	6,569 25	6,569 25
		k 500 00	c 800 00	600 00		670 49		2,570 49	1891	7,158 26	7,158 26
		k 500 00	c 800 00	600 00		682 64		2,582 64	1892	6,118 60	6,118 60
		k 500 00	c 800 00	600 00		663 73		2,563 73	1893	5,493 20	5,493 20
		k 500 00	c 800 00	600 00		663 15		2,563 15	1894	5,952 60	5,952 60
		k 500 00	c 800 00	600 00		642 30		2,542 30	1895	5,727 90	5,727 90
		k 500 00	c 800 00	600 00		638 15		2,538 15	1896	9,959 15	9,959 15
		k 500 00	c 800 00	600 00		646 50		2,546 50	1897	5,714 25	5,714 25
		k 500 00	c 800 00	600 00		647 80		2,547 80	1898	5,262 50	5,262 50
			m 600 00	600 00		711 70		1,911 70	1899	5,691 79	5,691 79
			m 600 00	600 00		653 40	365 28	2,218 68	1900	5,024 40	5,024 40
			m 600 00	600 00		630 20	15 39	1,845 59	1901	4,822 20	4,822 20
			m 600 00	600 00	$88 90	636 80	850 47	2,776 17	1902	5,078 80	5,078 80
			m 600 00	600 00	92 66	607 24	147 68	2,047 58	1903	4,615 70	4,615 70
			m 600 00	600 00	45	609 25		1,809 70	f1904	396 50	396 30
	*$33,151 13	$17,500 00	$35,800 00	$23,880 00	$182 01	$37,194 95	$10,418 19	$158,126 28	Total.....	$401,705 69	$401,705 69

NEW CENTRE MARKET.

Debits.								Credits.		
Cost of Lot.	Cost of Structure.	Salary of Keeper, Engineer, Fireman, Watchman.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Total.
(1906-08) $161,223 83			m $600 00	$600 00				$162,423 83	1905		
			m 600 00	600 00			$214 00	1,414 00	1906		
	(1906-08)		m 600 00	600 00	$66 90	$1,384 64		5,651 54	1907	$17,245 67	$17,245 67
		x$1,500 00	m 600 00	600 00	224 10	4,727 84	5,791 78	13,443 72	1908	15,212 50	15,212 50
	$500,648 70	y 2,220 00	m 600 00	1,200 00	69 50	3,185 20	301 13	508,224 53	1909	15,803 17	15,803 17
		y 2,220 00	m 600 00	1,200 00	122 00	3,036 99	585 45	7,764 44	1910	15,734 00	15,734 00
		y 2,220 00	m 625 00	1,200 00	69 40	3,118 37	3,845 68	11,078 45	1911	14,863 66	14,863 66
$161,223 83	$500,648 70	$8,160 00	$4,225 00	$6,000 00	$551 90	$18,453 04	$10,748 04	$710,000 51	Total	$78,859 00	$78,859 00
$161,223 83	$533,799 83	$25,660 00	$40,025 00	$29,880 00	$733 91	$55,647 99	$21,156 23	$868,126 79	Grand Total	$480,564 69	$480,564 69

In 1909 $30,000 was appropriated for remodeling Centre Market produce hall, but the money was not used for the purpose

* During various years.
b Clerks, $700; assistant clerks, $300.
c Clerks, $450; assistant clerks, $350.
f Destroyed by fire in 1904.
k Keeper to Institute Market.
m Clerk's salary.
x Engineer, $900; watchman, $600.
y Engineer, $900; watchman, $600; fireman, $720.

CROSS STREET MARKET.

Historical.

Lot.

By Resolution No. 50, 1838, of the Mayor and City Council of Baltimore, the Mayor was requested to negotiate with property-owners in the vicinity of Light and William streets to ascertain price at which they would sell sufficient property for the erection of a new market house.

Resolution No. 20, February 18, 1842, directed City Commissioners to select same site on which to erect a market house south of Montgomery street, between Johnson and Hanover streets.

The Cross Street Market and Weyler street properties were conveyed to the Mayor and City Council by four separate deeds as follows, (as per chart in the City Register's office):

That part embraced within the letters A, B, C, D was sub-leased by D. W. Brown by sub-lease dated May 27, 1845, and recorded in A. W. B. 353,258. Ground rent $240 per annum, redeemable for $4,000; said ground rent was purchased for the benefit of the sinking fund by deed from Baltimore Equitable Society, dated July 2, 1895, and recorded in J. B. 1570-79.

That part embraced within the letters E, F, G, H was sub-leased by John S. Gittings by sub-lease dated May 17, 1845, and recorded in A. W. B. 353,253. Ground rent $310, redeemable for $5,167.

That part embraced within the letters J, K, L, N was sub-leased by John S. Gittings by sub-leased dated 1845 and recorded in A. W. B. 353,261. Ground rent $254, redeemable for $4,233.33.

That part embraced within the letters L, N, T, V was sub-leased by S. J. Donaldson & Co. by sub-lease dated May 20, 1851, and recorded in A. W. B. 46,062. Ground rent $170, redeemable for $2,833.

The last three recited ground rents were purchased for the benefit of the sinking fund by the following recited deeds:

A deed from Mary A. B. Williamson, executrix, dated July 6, 1895, and recorded in J. B. 1570-306. Consideration, $2,583.33.

A deed from Mary S. Donaldson, dated July 15, 1895, and recorded in J. B. 1570-308. Consideration, $1,416.57. A deed from B. F. Newcomer, et al., dated December 18, 1895, and recorded in R. O. 1596. Consideration $8,233.34.

The Mayor and City Council sub-leased the lots colored green to various persons and collected ground rents therefrom; the large numbers being the respective numbers of the lots so leased; the small numbers represent the house numbers. The two lots not colored were sold.

Structure.

Resolutions Nos. 111 and 112 of 1845, and Resolution No. 35 of 1846, provided for leasing lot for and erecting Cross Street Market House and the market house was built at a cost of $2,145, plus $1,938.84 for grading, paving, etc.; total, $4,083.84.

Ordinance No. 33, April 7, 1864, authorized the erection of a new market house and an office for the accommodation of the clerk on Cross Street Market Space, fronting on Light street, at a cost not to exceed $8,000, and directed the Comptroller to dispose of the stalls in the new market in accordance with existing ordinances.

Ordinance No. 54, July 22, 1869, authorized the erection of new market house and hall and directed that $25,000 be appropriated from the levy of 1870 for such purpose, which was done as per Ordinance No. 72, 1870.

Resolution No. 107, March 28, 1872, and Ordinance No. 84, 1872, appropriated $17,500 additional and other appropriations were:

Ordinance No. 139, 1871	$4,572 00
Resolution No. 350, 1872	5,500 00
Ordinance No. 74, 1873	22,731 95
Resolution No. 447, 1873	433 50

Location—Cross, Charles, Weyler and Light streets.

Dimensions—515 feet, Charles to Light streets; 63 feet, Cross street to Weyler street.

	Debits.							Credits.		
Cost of Lot and Structure.	Ground Rent.g	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
Lot in 1845	$974 00	.....	.....	.....	.....	.....	$13,175 51	1845	.....	.....	.....
$8,116.67	13,626 00	.....	.....	.....	.....	.....	13,626 00	46-59	.....	.....	.....
Structure	974 00	$50 00	.....	.....	$281 00	.....	1,305 00	1860	$630 26	.....	$630 26
in 1845	974 00	50 00	.....	.....	*	.....	1,024 00	1861	472 02	.....	472 02
$4,083.84	974 00	50 00	.....	.....	*	.....	1,024 00	1862	103 90	.....	103 90
	974 00	50 00	.....	.....	*	.....	1,024 00	1863	270 65	.....	270 65
$12,200 51	974 00	150 00	$50 00	.....	*	.....	1,174 00	1864	127 15	$1,892 35	2,019 50
.....	974 00	150 00	50 00	.....	153 10	.....	1,327 10	1865	367 50	4,690 95	5,058 45
.....	974 00	150 00	50 00	.....	*	.....	1,174 00	1866	1,458 98	.....	1,458 98
.....	974 00	150 00	50 00	.....	*	.....	1,174 00	1867	1,591 50	.....	1,591 50
.....	974 00	150 00	50 00	.....	571 77	.....	1,745 77	1868	1,304 28	.....	1,304 28
.....	974 00	350 00	50 00	.....	100 10	.....	1,474 10	1869	1,204 35	.....	1,204 35
.....	974 00	350 00	50 00	.....	232 90	.....	1,606 90	1870	1,414 24	.....	1,414 24
Structure,	974 00	600 00	50 00	.....	217 60	.....	53,864 28	1871	1,126 30	.....	1,126 30
Market and	974 00	600 00	50 00	.....	354 55	.....	1,978 55	1872	1,443 20	.....	1,443 20
Hall, during	974 00	800 00	50 00	.....	356 41	.....	2,180 41	1873	1,615 00	13,618 35	15,233 35
various	974 00	800 00	50 00	.....	640 82	.....	2,464 82	1874	1,758 00	6,261 52	8,019 52
years,	974 00	800 00	50 00	.....	914 45	.....	2,738 45	1875	1,814 50	1,596 12	3,410 62
$52,022.68	974 00	800 00	50 00	.....	532 78	$1,882 16	4,238 94	1876	2,753 50	4,724 71	7,478 21
.....	974 00	800 00	50 00	.....	1,214 30	*	3,038 30	1877	2,916 30	2,709 80	5,626 10
.....	974 00	800 00	50 00	.....	303 73	*	2,127 73	1878	2,561 95	165 99	2,727 94
.....	974 00	800 00	300 00	.....	1,259 45	*	3,333 45	1879	2,568 94	938.80	3,507 74
.....	974 00	800 00	300 00	.....	500 75	*	2,574 75	1880	2,973 99	430 69	3,404 68
.....	974 00	800 00	300 00	.....	1,187 80	*	3,261 80	1881	2,972 44	.....	2,972 44
.....	974 00	800 00	300 00	.....	339 05	*	2,413 05	1882	3,116 39	.....	3,116 39
.....	974 00	800 00	300 00	.....	435 75	*	2,509 75	1883	3,207 40	80 84	3,288 24
.....	974 00	800 00	300 00	.....	315 00	*	2,389 00	1884	3,523 85	.....	3,523 85
.....	974 00	800 00	300 00	.....	402 50	*	2,476 50	1885	4,084 35	.....	4,084 35
.....	974 00	800 00	300 00	.....	314 75	*	2,388 75	1886	4,107 75	.....	4,107 75
.....	974 00	800 00	300 00	.....	454 07	*	2,528 07	1887	4,144 90	.....	4,144 90
.....	974 00	800 00	300 00	.....	308 05	*	2,382 05	1888	4,201 30	.....	4,201 30
.....	974 00	800 00	300 00	.....	416 30	*	2,490 30	1889	4,253 55	.....	4,253 55
.....	974 00	800 00	300 00	.....	311 40	*	2,385 40	1890	4,533 45	.....	4,533 45
.....	974 00	800 00	300 00	.....	406 50	*	2,480 50	1891	4,484 75	.....	4,484 75
.....	974 00	800 00	300 00	.....	330 68	1,500 00	3, 904 68	1892	4,685 95	.....	4,685 95
.....	974 00	800 00	300 00	.....	320 20	*	2,394 20	1893	4,640 70	.....	4,640 70
.....	974 00	800 00	300 00	.....	309 25	*	2,383 25	1894	4,631 60	.....	4,631 60
.....	974 00	800 00	300 00	.....	286 80	*	2,360 80	1895	4,092 60	.....	4,092 60
.....	974 00	800 00	300 00	.....	363 03	*	2,437 03	1896	4,561 20	.....	4,561 20
.....	974 00	800 00	300 00	.....	312 00	*	2,386 00	1897	4,432 00	.....	4,432 00
.....	974 00	800 00	300 00	.....	339 51	*	2,413 51	1898	4,393 25	400 00	4,793 25
.....	974 00	700 00	300 00	.....	365 60	*	2,339 60	1899	4,278 00	.....	4,278 00
.....	974 00	700 00	300 00	.....	318 75	441 09	2,733 84	1900	4,361 40	.....	4,361 40
.....	974 00	700 00	300 00	.....	311 50	355 63	2,641 33	1901	4,440 25	.....	4,440 25
.....	974 00	700 00	300 00	.....	313 50	84 62	2,372 12	1902	4,752 25	.....	4,752 25
.....	974 00	700 00	300 00	$60 90	307 30	109 22	2,451 42	1903	4,050 45	.....	4,050 45
.....	974 00	699 96	300 00	63 40	315 25	790 29	3,142 90	1904	4,225 20	.....	4,225 20
.....	974 00	700 00	420 00	36 70	327 20	669 15	3,127 05	1905	4,162 00	.....	4,162 00
.....	974 00	700 00	420 00	67 10	431 90	3,261 86	5,854 88	1906	4,229 85	.....	4,229 85
.....	974 00	700 00	420 00	63 40	444 75	345 42	2,947 57	1907	4,287 20	.....	4,287 20
.....	974 00	699 97	420 00	.....	45 58	2,239 74	4,379 29	1908	4,319 85	.....	4,319 85
.....	974 00	699 91	420 00	69 40	38 00	11,241 80	13,443 11	1909	4,323 30	.....	4,323 30
.....	974 00	699 94	420 00	72 00	44 03	674 22	2,885 19	1910	4,336 35	.....	4,336 35
.....	974 00	700 00	420 00	73 80	68 32	1,669 44	3,905 56	.....	4,297 20	.....	4,297 20
$64,223.19	$65,248 00	$32,749 78	$11,490 00	$506 70	$18,118 03	$25,264 86	$217,600 56	Total....	$160,607 24	$37,510 12	$198,117 36

* Figures not ascertainable.

g Ground rent owned by the Commissioners of Finance of Baltimore city.

CROSS STREET MARKET HALL.

Year.	Expenses and Repairs.	Receipts from Rentals.	Year.	Expenses and Repairs.	Receipts from Rentals.
1872	.....	$202 00	1892	$34 75	$159 00
1873	$57 50	340 00	1893	60 23	194 00
1874	.....	355 00	1894	32 75	214 00
1875	.....	50 00	1895	29 00	113 00
1876	.....	....	1896	74 15	259 00
1877	.....		1897	97 14	393 10
1878	.....		1898	98 80	305 00
1879	.....		1899	109 35	199 75
1880	.....		1900	128 25	356 00
1881	.....	..	1901	106 25	344 00
1882	.....	.....	1902	159 75	755 25
1883	29 00	176 00	1903	202 40	943 00
1884	.....	.....	1904	287 35	707 00
1885	*1,255 25	276 00	1905	254 00	605 00
1886	55 55	320 00	1906	216 05	358 00
1887	55 40	447 00	1907	219 15	523 00
1888	36 50	204 00	1908	221 68	547 00
1889	16 50	110 00	1909	167 41	212 00
1890	19 75	138 00	1910	171 24	223 50
1891	20 10	216 50	1911	309 08	216 50
			Total....	$4,524 33	$10,463 60

*Including $1,200 for repairs, this amount being appropriated in 1885.

FELL'S POINT MARKET.

Historical.

Lot.

The bed of the street in which the market is located was dedicated a highway by William Fell under authority of Act of 1781, Chapter 24.

By Act of 1785, Chapter 33, the market house was built on lot dedicated by William Fell.

By Ordinance No. 51, 1797, the market house was directed to be removed to the center of the street and permission was given to the members of two Masonic Lodges to erect a building on the market square. By the same ordinance, $1,000 was appropriated for paving inside foot ways.

Structure.

The market house was directed to be removed to the center of the street by Ordinance, No. 51, 1797, and No. 65, 1798.

Market has also been known as Broadway Market.

The following appropriations have been made for the market on Broadway:

1797-1850, New market houses, grading, paving re-building etc.	$21,532 90
Ordinance No. 108, 1853, new house in place of one burned	8,377 00
1850-1896, hose	852 50
1850-1890, repairs, etc.	8,270 00
Resolution No. 144, 1868, well	1,200 00
Resolution No. 56, 1888, paving	4,850 00
Resolution No. 105, 1890, paving	2,500 00
Ordinance 30, 1864, additional market house	40,000 00
Resolution No. 131, 1865, furnishing hall	2,000 00
Resolution No. 220, 1866, and Ordinance No. 18, 1881, sheds	10,250 00
Ordinance No. 57, 1883, paving	23,505 00
Resolution No. 119, 1898-99, paving	600 00
Total	$123,937 40

Location—Broadway, from Canton avenue to Thames street.

FELL'S POINT (BROADWAY) MARKET.

Debits.								Credits.			
Cost of Lot.	Cost of Structure.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
Donated.	*$62,871 96						$62,871 96				
								1857	$3,415 32		$3,415 32
		$400 00			$221 00		621 00	1858	3,243 73		3,243 73
		400 00			206 62		606 62	1859	4,325 33		4,325 33
		400 00			323 18		723 18	1860	4,142 54		4,142 54
		400 00			270 24		670 24	1861	3,833 26		3,833 26
		400 00			326 35		726 35	1862	3,661 86		3,661 86
		400 00			280 00		680 00	1863	4,189 43		4,189 43
		450 00	$240 00		262 93		952 93	1864	4,185 31	$31,017 96	4,185 31
		k 850 00	240 00		680 50		1,770 50	1865	4,670 38	7,710 34	35,688 34
		k 850 00	240 00				1,090 00	1866	5,334 42		13,044 76
		k 850 00	240 00				1,090 00	1867	5,039 71		5,039 71
		k 850 00	240 00		1,248 67		2,338 67	1868	5,600 50		5,600 50
		k 850 00	360 00		692 95	$2,100 00	4,002 95	1869	5,618 31		5,618 31
		k 850 00	360 00		1,038 09		2,248 09	1870	5,585 87		5,585 87
		k 850 00	360 00		566 92		1,776 92	1871	4,433 67		4,413 67
		k 850 00	360 00		852 34		2,062 34	1872	6,099 90		6,099 90
		k 850 00	360 00		711 97		1,921 97	1873	5,327 68		5,327 68
		k 850 00	360 00		860 72		2,070 72	1874	5,468 76		5,468 76
		k 850 00	360 00		953 75		2,163 75	1875	5,246 64		5,246 64
		k 850 00	360 00		803 54		2,013 54	1876	5,401 45		5,401 45
		k 850 00	360 00		1,065 88		2,275 88	1877	5,955 41		5,955 41
		k 850 00	360 00		625 95		1,835 95	1878	6,030 32		6,030 32
		k 850 00	480 00		700 15		2,030 15	1879	6,003 58		6,003 58
		k 850 00	480 00		591 87		1,921 87	1880	6,057 16		6,057 16
		k 850 00	480 00		703 58	8,919 78	10,953 36	1881	6,614 18		6,614 18
		k 850 00	480 00		590 50		1,920 50	1882	6,601 23		6,601 23
		k 850 00	480 00		656 30		1,986 30	1883	6,664 00		6,644 00
		k 850 00	480 00		557 95	1,000 00	2,887 95	1884	6,697 40		6,697 40
		k 850 00	480 00		658 57		1,988 57	1885	6,918 50		6,918 50
		k 850 00	480 00		534 24	10,289 34	12,153 58	1886	6,853 25		6,853 25
		k 850 00	480 00		517 75		1,847 75	1887	6,736 50		6,736 50
		k 850 00	480 00		518 80		1,848 80	1888	6,574 05		6,574 05
		k 850 00	480 00		604 11		1,934 11	1889	6,468 60		6,468 60
		k 850 00	480 00		608 30	1,896 02	3,834 32	1890	6,440 35		6,440 35
		k 850 00	480 00		523 00	1,255 50	3,108 50	1891	6,524 25		6,524 25
		k 850 00	480 00		510 85	206 24	2,047 09	1892	6,559 70		6,559 70
		k 850 00	480 00		527 10		1,857 10	1893	6,422 70		6,422 70
		k 850 00	480 00		501 50		1,831 50	1894	6,343 25		6,343 25
		k 850 00	480 00		513 50		1,843 50	1895	6,263 80		6,263 80
		k 850 00	480 00		508 00		1,838 00	1896	6,842 35		6,842 35
		k 850 00	480 00		520 20		1,859 20	1897	6,696 45		6,695 45
		k 850 00	480 00		568 76		1,898 76	1898	6,710 55		6,710 55
		600 00	480 00		577 93		1,657 93	1899	6,859 50		6,859 50
		600 00	480 00		521 35	146 39	1,747 74	1900	7,082 95		7,082 95
		600 00	480 00		505 00	15 90	1,600 90	1901	6,964 56	3 00	6,967 56
		600 00	480 00		509 75	352 26	1,942 01	1902	7,383 50	19 00	7,402 50
		600 00	480 00	$128 00	506 94	251 30	1,966 24	1903	7,580 95	14 00	7,594 95
		600 00	480 00		520 62	2,578 93	4,179 55	1904	7,843 20	54 50	7,897 70
		600 00	480 00	73 85	529 63	1,093 01	2,776 49	1905	8,312 50		8,312 50
		600 00	600 00	63 40	680 70	3,187 91	5,132 01	1906	8,228 70	47 00	8,275 70
		600 00	600 00	130 55	738 19	676 68	2,745 42	1907	8,370 10		8,370 10
		600 00	660 00	156 00	42 22	1,546 42	2,984 64	1908	8,949 45		8,949 45
		600 00	660 00		33 93	6,869 74	8,163 67	1909	8,698 85		8,698 85
		600 00	660 00	138 80	98 54	10,590 91	12,088 25	1910	8,464 15		8,464 15
		600 00	660 00	83 00	50 58	1,702 56	3,096 14	1911	8,290 60		8,290 60
	*$62,871 96	$39,550 00	$21,600 00	$753 60	$28,722 01	$54,678 89	$208,176 46	Total....	$340,790 66	$38,865 80	$379,656 46

*During various years.
k Includes $400 salary for keeper of Broadway Hall; position abolished in 1899.

BROADWAY HALL.

Year.	Expenses and Repairs.	Receipts from Rentals.	Year.	Expenses and Repairs.	Receipts from Rentals.
1866	.....	$707 00	1889	$32 10	$55 00
1867	$700 28	1,030 00	1890	600 00	88 00
1868	346 14	977 25	1891	15 00	15 00
1869	361 12	1,680 00	1892	40 00	135 00
1870	.....	1,041 00	1893	9 50	35 00
1871	.....	445 00	1894	4 50	20 00
1872	.....	250 00	1895	.....	.....
1873	1,481 34	22 50	1896	.....	.....
1874	328 00	.....	1897	.....	.....
1875	108 25	15 00	1898	78 97	112 00
1876	.....	.....	1899	158 94	233 00
1877	.....	.....	1900	56 25	175 00
1878	.....	.....	1901	21 25	103 00
1879	.....	.....	1902	35 00	227 50
1880	.....	.....	1903	87 07	376 00
1881	.....	.....	1904	4,035 25	42 00
1882	.....	.....	*1905	.....	.....
1883	71 98	225 00	*1906	.....	.....
1910	.....	.....	1907	54 00	54 00
1885	85 75	1,321 55	1908	127 90	218 00
1886	86 50	739 70	1909	63 50	52 00
1887	.....	40 00	1910	41 42	13 00
1888	.....	.....	1911	56 69	.....
			Total.....	$9,086 30	$10,427 50

*Occupied by Naval Reserves, M. N. G.

HANOVER MARKET.

Historical.

Lot.

By Act of 1784, Chapter 62, "one-fourth of the proceeds of the sale of the Old Marsh Market was appropriated towards defraying the expense of erecting the Hanover Market House.

By Act of 1790, Chapter 17, the Commissioners were authorized to sell part of the market ground to pay debts for which they were personally liable.

The Hanover Market property was conveyed to the Mayor and City Council of Baltimore by three separate deeds in fee-simple, as follows:

1st.—A deed from David Moore dated June 22, 1805, and recorded in W. G. 85,527. Consideration, $2,769.77.

2nd.—A deed from John Eager Howard dated July 10, 1805, and recorded in W. G. 85-645. Consideration, $1,246.50.

3rd.—A deed from the Union Fire Company dated June 1, 1843, and recorded in T. K. 35,133, and by Ordinance 31, April 7, 1843, $4,000 was appropriated for the purpose of providing other quarters for the Union Fire Company, in exchange for the Hanover street property.

Structure.

From 1806 to 1850 various ordinances were passed, making appropriations for improving the market house, weigh house, fish market, etc., amounting to $17,332.71, and in 1848 there was paid for the opening of Dover street the sum of $9,686.

Other appropriations were as follows:

Residence 159, 1869, $3,000 for repairs.

Residence 321, 1871, $140 for repairs.

1876, after the general appropriation, $1,700 was appropriated for repairs.

1886, $2,500 for new roof.

1887, $2,525 for repaving fish market.

1887, $800 for constructing clerk's office.

By Acts of the Assembly, the State of Maryland, Chapter 323, passed April 1, 1839, and Chapter 52, passed January 30, 1840, commissioners were named and authorized to raise by a lottery $150,000 (limit placed at $225,000 by Chapter 52, passed January 30, 1840) for certain improvements within the City of Baltimore, among which were the purchase of ground for and the rebuilding and improvement of Hanover Market House.

Resolution 149, April 20, 1844, provided for enlarging the market.

Ordinance 58, June 23, 1854, authorized the sale of Charles Street City Spring lot, the proceeds, or so much as required, to be set aside for the special purpose of rebuilding Hanover Market and grading lots.

Ordinance 71, July 11, 1854, appropriated $22,000 out of sale of the Charles Street City Spring lot for the purpose of removing old structure and erecting new one in place thereof.

Location—Hanover street, Dover street, Camden street and Camden lane.

Dimensions—140 feet by 140 feet.

Debits.								Credits.		
Cost of Lot.	Cost of Structure.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems	Sale of Stalls.	Total.
$4,016 27	.....	.....	.....	.....	.....	.....	$4,016 27	1805	.....	.....	.....
4,000 00	.....	.....	.....	.....	.....	.....	4,000 00	1843	.....	.....	.....
.....	$25,001 43	.....	.....	.....	.....	.....	25,001 43	1854	.....	.....	.....
.....	.....	$400 00	.....	.....	.....	.....	400 00	1857	$4,437 14	.....	$4,437 14
.....	.....	400 00	.....	.....	$264 25	.....	664 25	1858	4,541 56	.....	4,541 56
.....	.....	400 00	.....	.....	258 50	.....	658 50	1859	4,934 99	.....	4,934 99
.....	.....	400 00	.....	.....	323 19	.....	723 19	1860	5,125 20	.....	5,125 20
.....	.....	400 00	.....	.....	331 48	.....	731 48	1861	4,834 57	.....	4,834 57
.....	.....	400 00	.....	.....	351 24	.....	751 24	1862	4,939 73	.....	4,939 73
.....	.....	400 00	.....	.....	384 38	.....	784 38	1863	5,111 62	.....	5,111 62
.....	.....	450 00	$300 00	.....	332 83	.....	1,082 83	1864	5,163 00	$2,012 17	7,175 17
.....	.....	450 00	300 00	.....	772 99	.....	1,522 99	1865	5,512 02	.....	5,512 02
.....	.....	450 00	300 00	.....	*	.....	750 00	1866	5,586 95	.....	5,586 95
.....	.....	450 00	300 00	.....	*	.....	750 00	1867	5,590 38	.....	5,590 38
.....	.....	450 00	300 00	.....	1,769 38	.....	2,519 38	1868	5,729 78	.....	5,729 78
.....	.....	450 00	300 00	.....	717 90	.....	1,467 90	1869	5,758 71	.....	5,758 71
.....	.....	450 00	300 00	.....	906 55	.....	1,656 55	1870	5,705 91	.....	5,705 91
.....	.....	450 00	300 00	.....	1,286 44	.....	2,036 44	1871	4,379 49	.....	4,379 49
.....	.....	450 00	300 00	.....	1,008 30	.....	1,758 30	1872	6,045 66	.....	6,045 66
.....	.....	450 00	300 00	.....	803 60	.....	1,553 60	1873	5,283 34	.....	5,283 34
.....	.....	450 00	300 00	.....	801 80	.....	1,551 80	1874	5,070 26	.....	5,070 26
.....	.....	450 00	300 00	.....	780 75	.....	1,530 75	1875	5,085 20	.....	5,085 20
.....	.....	450 00	300 00	.....	767 25	.....	1,517 25	1876	5,778 31	.....	5,778 31
.....	.....	450 00	300 00	.....	2,532 43	.....	3,282 43	1877	5,488 27	.....	5,488 27
.....	.....	450 00	300 00	.....	714 10	.....	1,464 10	1878	5,370 23	.....	5,370 23
.....	.....	450 00	400 00	.....	742 34	.....	1,592 34	1879	4,743 49	.....	4,743 49
.....	.....	450 00	400 00	.....	636 56	.....	1,486 56	1880	4,551 94	.....	4,551 94
.....	.....	450 00	400 00	.....	720 81	.....	1,570 81	1881	4,435 72	.....	4,435 72
.....	.....	450 00	400 00	.....	637 96	.....	1,487 96	1882	5,008 54	.....	5,008 54
.....	.....	450 00	400 00	.....	718 96	.....	1,568 96	1883	5,509 96	.....	5,509 96
.....	.....	450 00	400 00	.....	636 11	.....	1,486 11	1884	5,837 65	.....	5,837 65
.....	.....	450 00	400 00	.....	790 41	.....	1,640 41	1885	6,208 68	.....	6,208 68
.....	.....	450 00	400 00	.....	625 61	$2,485 09	3,960 70	1886	6,445 45	.....	6,445 45
.....	.....	450 00	400 00	.....	618 41	3,321 00	4,789 41	1887	6,345 00	.....	6,345 00
.....	.....	450 00	400 00	.....	445 46	*	1,295 46	1888	6,240 35	.....	6,240 35
.....	.....	450 00	400 00	.....	438 46	*	1,288 46	1889	6,241 00	.....	6,241 00
.....	.....	450 00	400 00	.....	441 96	*	1,291 96	1890	6,054 00	.....	6,054 00
.....	.....	450 00	400 00	.....	451 01	*	1,301 01	1891	5,648 10	.....	5,648 10
.....	.....	450 00	400 00	.....	441 96	*	1,291 96	1892	5,272 60	.....	5,272 60
.....	.....	450 00	400 00	.....	442 46	*	1,292 46	1893	4,960 00	.....	4,960 00
.....	.....	450 00	400 00	.....	445 96	*	1,295 96	1894	4,812 25	.....	4,812 25
.....	.....	450 00	400 00	.....	435 96	*	1,285 96	1895	4,455 85	.....	4,455 85
.....	.....	450 00	400 00	.....	435 96	*	1,285 96	1896	4,304 65	.....	4,304 65
.....	.....	450 00	400 00	.....	435 96	*	1,285 96	1897	4,075 30	.....	4,075 30
.....	.....	450 00	400 00	.....	443 21	*	1,293 21	1898	3,895 75	.....	3,895 75
.....	.....	450 00	400 00	.....	469 81	*	1,319 81	1899	3,888 50	.....	3,888 50
.....	.....	450 00	400 00	.....	444 71	40 70	1,335 41	1900	4,014 00	.....	4,014 00
.....	.....	450 00	400 00	.....	446 20	3,144 65	4,440 85	1901	3,786 15	.....	3,786 15
.....	.....	450 00	400 00	$87 60	440 96	97 37	1,475 93	1902	3,902 30	.....	3,902 30
.....	.....	450 00	400 00	31 70	414 18	532 91	1,828 79	1903	3,667 95	.....	3,667 95
.....	.....	450 00	400 00	63 40	456 91	1,024 16	2,394 47	1904	5,018 25	45 00	5,063 25
.....	.....	450 00	420 00	95 10	466 86	399 14	1,831 10	1905	6,106 00	.....	6,106 00
.....	.....	450 00	420 00	63 65	497 30	28 33	1,459 28	1906	5,861 80	.....	5,861 80
.....	.....	450 00	420 00	38 30	482 90	977 73	2,368 93	1907	3,273 90	.....	3,273 90
.....	.....	450 00	420 00	34 70	60 70	62 87	1,028 27	1908	2,776 00	25 00	2,776 00
.....	.....	450 00	420 00	68 70	57 10	630 94	1,626 74	1909	2,535 40	.....	2,535 40
.....	.....	450 00	420 00	72 40	67 25	.....	1,009 65	1910	2,459 60	.....	2,459 60
.....	.....	450 00	420 00	80 00	77 00	349 27	1,376 27	1911	2,472 50	.....	2,472 50
$8,016 27	$25,001 43	$24,400 00	$17,840 00	$635 55	$30,474 77	$13,094 16	$119,462 18	Total....	$270,280 95	$2,082 17	$273,363 12

*Figures not obtainable.

HOLLINS MARKET.

Historical.

Lot.

The Hollins Market property was conveyed to the Mayor and City Council of Baltimore from the Commercial and Farmers' National Bank by deed dated May 8, 1835, and recorded in T. K. 249-348, the lot being donated to the city.

Structure.

Resolution No. 64, April 16, 1835, grants the petition of Joseph Newman and others to erect at their own expense a market house on lot 84 feet on Wansbech street and 340 feet on Hollins street, "When George T. Dunbar shall have conveyed to the Mayor and City Council of Baltimore the lot of ground on Hollins street for erecting a market house thereon."

The market house was erected by Joseph Newman and others at their own expense, and it was blown down in 1838.

By resolution No. 2, 1839, the market house was rebuilt and up to the end of the year 1850 there was paid on account of said building, etc., the sum of $383.08.

Ordinance No. 60, August 27, 1863, provided for the erection of an additional market house at Hollins street, appropriating $11,000 for the purpose, and by Ordinance No. 5, February 5, 1864, an additional sum of $12,000 was appropriated for the same purpose.

Resolution No. 203, June 29, 1877, provided for an extension of the market.

Location—Hollins street, Carrollton to Arlington avenue.

Dimensions—40 feet by 340 feet.

HOLLINS MARKET.

Debits.							Credits.			
Cost of Lot.	Cost of Structure.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
Donated.		$100 00					$100 00	1857	$985 96		$985 96
		200 00			$28 76		228 76	1858	951 88	$100 00	1,051 88
		200 00			86 00		286 00	1859	1,036 93		1,036 93
		200 00			166 97		266 97	1860	1,118 05		1,118 05
		200 00			149 57		349 57	1861	1,133 35		1,133 35
		200 00			196 24		396 24	1862	1,037 53		1,037 53
		200 00					200 00	1863			
		250 00	$120 00				370 00	1864	1,083 28		1,083 28
		250 00	120 00		164 75		534 75	1865	1,326 72	12,276 39	13,603 11
	*$29,871 16	250 00	120 00				30,241 16	1866	1,269 95		1,269 95
		250 00	120 00				370 00	1867	1,247 70		1,247 70
		250 00	120 00		487 00		857 00	1868	2,279 39		2,279 39
		500 00	120 00	†	199 42		819 42	1869	2,432 38		2,432 38
		500 00	120 00	†	522 38		1,142 38	1870	2,464 65		2,464 65
		500 00	120 00	†	312 68		932 68	1871	2,263 72		2,263 72
		500 00	120 00	†	285 60		905 60	1872	2,972 82		2,972 82
		500 00	120 00	†	250 25		870 25	1873	2,763 81		2,763 81
		500 00	120 00	†	3,808 40		4,428 40	1874	2,719 57		2,719 57
		500 00	120 00	†	340 75		960 75	1875	2,694 36		2,694 36
		500 00	120 00	†	310 97		930 97	1876	3,207 04		3,207 04
		500 00	120 00	†	2,881 95		3,501 95	1877	3,834 20		3,834 20
		500 00	120 00	†	289 65		909 65	1878	3,536 50		3,535 50
		500 00	300 00	†	346 80		1,146 80	1879	3,559 10		3,559 10
		500 00	300 00	†	330 95		1,130 95	1880	3,642 08		3,642 08
		500 00	300 00	†	625 18		1,425 18	1881	3,500 27		3,500 27
		500 00	300 00	†	356 65		1,156 65	1882	3,533 68		3,533 68
		500 00	300 00	†	330 55		1,130 55	1883	9,459 13		3,459 13
		500 00	300 00	†	467 35		1,267 35	1884	3,467 64		3,467 64
		500 00	300 00	†	343 25		1,143 25	1885	3,386 45		3,386 45
		500 00	300 00	†	392 05		1,192 05	1886	3,762 47		3,762 47
		500 00	300 00	†	1,003 90		1,803 90	1887	3,740 65		3,740 65
		500 00	300 00	†	355 00		1,155 00	1888	3,667 85		3,667 85
		500 00	300 00	†	330 00		1,130 00	1889	3,652 75		3,652 75
		500 00	300 00	†	404 80		1,204 80	1890	3,676 60		3,676 60
		500 00	300 00	†	333 00		1,133 00	1891	3,671 40		3,671 40
		500 00	300 00	†	336 00		1,136 00	1892	3,630 55		3,630 55
		500 00	300 00	†	336 00		1,136 00	1893	3,603 90		3,603 90
		500 00	300 00	†	340 85		1,140 85	1894	3,540 85		3,540 85
		500 00	300 00	†	336 00		1,136 00	1895	3,564 50		3,564 50
		500 00	300 00	†	347 90		1,147 90	1896	3,666 00		3,666 00
		500 00	300 00	†	324 00		1,124 00	1897	3,669 10		3,669 10
		500 00	300 00	†	332 30		1,132 30	1898	3,702 80		3,702 80
		500 00	300 00	†	371 72		1,171 72	1899	3,654 65		3,654 65
		500 00	300 00	†	339 80	$45 86	1,185 66	1900	3,640 70		3,640 70
		500 00	300 00	†	326 25	3,333 27	4,459 52	1901	3,649 75		3,649 75
		500 00	300 00	$7 60	323 85	150 87	1,362 32	1902	3,849 80	7 00	3,856 80
		500 00	300 00	8 40	311 79	95 01	1,265 20	1903	3,579 35	2 00	3,581 35
		500 00	300 00	63 40	343 25	33 94	1,240 59	1904	3,716 60	1 00	3,717 60
		500 00	300 00	31 70	353 35	398 55	1,583 60	1905	3,678 30		3,678 30
		500 00	300 00	63 40	522 06	178 74	1,564 20	1906	3,704 80		3,704 80
		500 00	300 00	75 70	539 86	584 74	2,000 30	1907	3,657 40		3,657 40
		500 15	499 92	102 00	58 65	150 00	1,310 72	1908	3,593 80		3,593 80
		499 97	499 92		58 14	2,015 40	3,073 43	1909	3,695 20		3,695 20
		500 00	500 00		83 60	448 68	1,532 28	1910	3,698 20		3,698 20
		500 00	500 00	81 25	70 20	166 03	1,317 48	1911	3,702 00		3,702 00
	$29,871 16	$24,050 12	$12,499 84	$563 45	$22,056 39	$7,601 09	$96,642 05	Total....	$162,278 11	$12,386 39	$174,664 50

*Donated.
†Figures not ascertainable.

HOLLINS MARKET HALL.

Year.	Expenses and Repairs.	Receipts from Rentals.	Year.	Expenses and Repairs.	Receipts from Rentals.
1867	$1,537 66	$237 25	1894	165 75	367 00
1868	231 35	372 33	1895	109 00	223 50
1869	114 64	211 00	1896	108 15	242 00
1870	.....	227 00	1897	71 25	182 00
1871	.....	95 00	1898	74 00	128 00
1872	.....	236 00	1899	45 40	96 00
1873	57 80	397 50	1900	53 15	123 00
1874	.....	56 00	1901	12 00	57 00
1875	.....	226 81	1902	25 00	106 00
1883	44 70	232 00	1903	25 00	106 00
1885	34 96	204 00	1904	77 40	118 00
1886	639 90	656 45	*1905	.....	.....
1887	88 05	812 00	†1906	.....	.....
1888	53 75	275 00	†1907	.....	.....
1889	95 50	472 00	†1908	.....	.....
1890	62 75	404 00	†1909	.....	.....
1891	95 25	257 00	†1910	.....	.....
1892	411 98	306 00	†1911	.....	.....
1893	83 75	200 00			
			Total....	$4,318 14	$7,625 84

*Occupied by Maryland Institute.
†Occupied by Boys' Brigade.

LAFAYETTE MARKET.

Historical.

Lot.

Resolution No. 79 of Mayor and City Council, approved March 15, 1870, provided for acquisition of lot for Lafayette Market, cost not to exceed $30,000.

Ordinance No. 72, approved June 3, 1870, appropriated $30,000 for the lot.

Deed dated April 9, 1870, recorded April 15, 1870, in Liber G. R. 460, Folio 164, of the Land Records of Baltimore City, from Thomas Sewell, Jr., and Annie G. Sewell, his wife, and Richard Sewell, Jr., and Emily E. Sewell, his wife, conveyed the lot to the Mayor and City Council of Baltimore.

Cost of lot, $28,993.24.

Structure.

Resolution No. 101, approved April 9, 1870, authorized $26,000 to be taken out of annual levy for 1870, for erection of suitable building or market house.

Ordinance No. 72, approved June 3, 1870, appropriated $26,000 for market house, according to Resolution No. 101, approved April 9, 1870.

Resolution No. 179, approved June 22, 1870, authorized City Commissioner to proceed at once.

Erected 1870-1871.

Cost of structure, $31,137.15.

Total cost of lot and structure, $60,130.39.

Location—Pennsylvania avenue, Sewell street, Fremont avenue and Laurens street.

Dimensions—According to plat in property book in City Register's Office, 358 feet on Laurens street, 50 feet on Pennsylvania avenue, 370 feet on Sewell street, frontage on Fremont street not indicated.

Messrs. Lindsay and Bernard, in assessing all city property in 1910-1911, and as reported by Judge Leser, of the Appeal Tax Court, January 10, 1911, to Mayor Mahool stated true dimensions were 70 feet by 450 feet, and assessed the property at $40 per foot on 450 feet, or $18,000, stating, in valuing the market house, they valued the available ground space for commercial purposes, ignoring the improvements, because the structure would be practically valueless at rate they used for the land.

Debits.								Credits.		
Cost of Lot.	Cost of Structure.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
$28,993 24	$31,137 15	.....	.....	.....	.....	.....	$60,130 39	1870	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	1871	.....	$12,881 52	$12,881 52
.....	.....	$300 00	.....	*	$46 95	*	346 95	1872	$463 00	24,368 01	24,831 01
.....	.....	300 00	.....	*	56 80	*	356 80	1873	420 00	5,352 92	5,772 92
.....	.....	300 00	.....	*	62 70	*	362 70	1874	462 75	639 25	1,102 00
.....	.....	300 00	.....	*	*	*	300 00	1875	486 00	1,030 37	1,516 37
.....	.....	300 00	.....	*	125 58	*	425 58	1876	423 00	2,228 21	2,651 21
.....	.....	300 00	.....	*	226 80	*	526 80	1877	459 00	2,629 34	3,088 34
.....	.....	300 00	.....	*	550 00	*	850 00	1878	548 50	322 64	871 14
.....	.....	300 00	$240 00	*	399 54	*	939 54	1879	577 50	111 84	689 34
.....	.....	300 00	240 00	*	247 20	*	787 20	1880	596 00	.....	596 00
.....	.....	300 00	240 00	*	308 37	*	848 37	1881	530 50	.....	530 50
.....	.....	300 00	240 00	*	246 70	*	786 70	1882	580 50	.....	580 50
.....	.....	300 00	240 00	*	244 63	*	784 63	1883	439 50	.....	439 50
.....	.....	300 00	240 00	*	258 40	*	798 40	1884	767 75	.....	767 75
.....	.....	300 00	240 00	*	251 13	*	791 13	1885	943 20	.....	943 20
.....	.....	300 00	240 00	*	250 80	*	790 80	1886	901 86	.....	901 86
.....	.....	300 00	240 00	*	252 52	*	792 52	1887	1,067 93	.....	1,067 93
.....	.....	300 00	240 00	*	244 37	*	784 37	1888	1,098 10	.....	1,098 10
.....	.....	300 00	240 00	*	291 90	*	831 90	1889	1,139 12	.....	1,139 12
.....	.....	300 00	240 00	*	224 25	*	764 25	1890	1,055 55	.....	1,055 55
.....	.....	300 00	240 00	*	302 00	$1,300 00	2,142 00	1891	1,737 74	.....	1,737 74
.....	.....	450 00	240 00	*	262 63	1,000 00	1,952 63	1892	2,546 60	.....	2,546 60
.....	.....	450 00	240 00	*	252 86	*	942 86	1893	2,097 50	.....	2,097 50
.....	.....	450 00	240 00	*	256 34	2,486 35	3,432 69	1894	2,195 60	.....	2,195 60
.....	.....	450 00	240 00	*	256 33	*	946 33	1895	2,133 00	.....	2,133 00
.....	.....	450 00	240 00	*	323 05	*	1,013 05	1896	2,368 20	.....	2,368 20
.....	.....	450 00	240 00	*	275 77	*	965 77	1897	2,731 07	.....	2,731 07
.....	.....	450 00	240 00	*	260 28	*	950 28	1898	2,802 05	.....	2,802 05
.....	.....	450 00	240 00	*	289 83	*	979 83	1899	2,782 85	.....	2,782 85
.....	.....	450 00	240 00	*	273 28	107 18	1,070 46	1900	2,756 80	.....	2,756 80
.....	.....	450 00	240 00	*	250 40	5,930 51	4,870 91	1901	2,912 95	.....	2,912 95
.....	.....	450 00	240 00	$58 40	254 00	133 56	1,135 96	1902	3,338 62	.....	3,338 62
.....	.....	450 00	240 00	57 30	247 95	102 45	1,097 70	1903	2,097 85	.....	2,097 85
.....	.....	450 00	240 00	63 40	266 71	250 26	1,270 37	1904	3,064 45	.....	3,064 45
.....	.....	450 00	420 00	50	279 83	483 87	1,634 20	1905	3,047 05	.....	3,047 05
.....	.....	450 00	420 00	99 85	441 92	343 26	1,755 03	1906	2,981 80	.....	2,981 80
.....	.....	450 00	420 00	105 80	458 73	383 26	1,817 79	1907	3,055 65	.....	3,055 65
.....	.....	450 00	420 00	3 00	27 05	264 93	1,164 98	1908	3,330 40	.....	3,330 40
.....	.....	450 00	420 00	.....	24 00	199 95	1,093 95	1909	3,294 20	.....	3,294 20
.....	.....	450 00	420 00	.....	31 80	66 98	968 78	1910	3,283 20	.....	3,283 20
.....	.....	450 00	420 00	80 00	33 00	7 37	990 37	1911	3,226 65	.....	3,226 65
$28,993 24	$31,137 15	$15,000 00	$9,180 00	$468 25	$9,356 40	$11,059 93	$105,194 97	Total.....	$70,743 99	$49,564 10	$120,308 09

*Indicates that figures are not ascertainable.

LEXINGTON MARKET.

HISTORICAL.

Lot.

By Act of 1803, Chapter 44, special commissioners were appointed to select suitable grounds for a market in the (then) western precincts, and to contract for building a market house according to such plan as the Levy Court of Baltimore County should approve. Tuesdays and Fridays were designated as "market days."

The Commissioners purchased property for the market in 1804, the property being conveyed by two separate deeds, as follows:

1. A deed from Christian Kenner, etc., dated November 29, 1804, and recorded in W. G. 84: 269. The land conveyed was 140 feet eastward from Paca street, the consideration being $4,150.

2. A deed from Eager Howard for 99 years, renewable, dated December 14, 1804, and recorded in W. G. 84: 195, conveys land from Paca to Greene street and subject to annual ground rent of $228, but redeemable at any time upon payment of $3,800. This rent was purchased for the sinking fund by deed from George T. R. Lewis and wife, dated January 4, 1888, and recorded in J. B. 1172: 136. Consideration, $3,800.

By Act of 1811, Chapter 18, the special commissioners were authorized to rent the stalls in the market for any time not exceeding one year.

By Act of 1817, Chapter 148, all the powers vested in the Board of Special Commissioners were transferred to the Mayor and City Council of Baltimore. The report of the City Register, May 23, 1851, in reference to city property, states that the ground occupied by the market up to this time is believed to have extended from the west side of Paca street to the east side of Greene street and from the east side of Paca street to the west side of Market alley.

By Ordinance No. 29, 1818, all the debts legally contracted by the Board of Special Commissioners were assumed by the city and the name changed from Western Precincts Market to "Lexington Market."

Additional ground was bought as follows:

A deed from John Eager Howard dated June 5, 1818, and recorded in W. G. 146: 129. This deed conveyed land from Eutaw street 160 feet westwardly. The lot was 96 feet wide, 30 feet for market house and 66 feet for Louisiana street. The consideration was $3,000.

A deed from Pane Beck, dated December 29, 1842, and recorded in T. K. 328: 246. The consideration was $15,000 and the deed conveyed from west side of Greene street to east side of Pearl street.

Structure.

The first structures were erected by the Special Commissioners of the Western precincts and the city, by Ordinance No. 29, 1818, assumed all the legal debts of these Commissioners.

The following appropriations were made:

1818-1850, for improving market, building new market houses, stalls, etc	$14,133 97
Ordinance No. 55, 1855, for new market house between Paca and Greene streets	11,000 00
Ordinance No. 55, 1855, new fish market at intersection of Pearl street	2,000 00
Resolution No. 109, 1866, plans for new market house between Greene and Pearl streets, with hall above and cellar below	200 00
Amount carried forward	$27,333 97

Amount brought forward	$27,333 97
Resolution No. 198, 1870, new market house between Eutaw and Paca streets	20,000 00
Ordinance No. 31, 1882, shed between Greene street and fish market	5,000 00
1850-1892, hose	1,316 00
1850-1890, repairs, painting, etc	9,490 00
Resolution No. 377, 1872, and Resolution No. 249, 1875, Ventilators	1,360 00
Resolution No. 53, 1842, bell	50 00
Ordinance No. 55, 1833, paving	30,092 00
Resolution No. 91, 1886, tin roof between Greene and Paca streets	1,600 00
Resolution No. 126, 1887, paving fish market	2,000 00
Resolution No. 11, 1891, painting	1,700 00
Total	$100,241 97

Location—Lexington street, from Eutaw to Pearl streets.

LEXINGTON MARKET.

Debits.								Credits.		
Cost of Lot and Structure.	Ground Rent.*g*	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
Lot,											
$21,800 00	.....	.....	.....	.....	.....	.....	$21,800 00	1804	.....	.....	.....
Structure,								to			
$56,387 13	$12,084 00	.....	.....	.....	.....	.....	12,084 00	1856	.....	.....	.....
(Various	228 00	.....	.....	.....	.....	.....	228 00	1857	$8,109 15	.....	$8,109 15
Years.)	228 00	.....	.....	.....	$523 45	.....	57,138 58	1858	8,739 72	.....	8,739 72
.....	228 00	.....	.....	.....	466 00	.....	694 00	1859	8,780 34	.....	8,780 34
.....	228 00	*p*$700 00	.....	.....	595 28	.....	1,523 28	1860	8,214 44	.....	8,214 44
.....	228 00	*p* 700 00	.....	.....	554 96	.....	1,482 96	1861	9,808 31	.....	9,808 31
.....	228 00	*p* 700 00	.....	.....	868 29	.....	1,796 29	1862	10,089 24	.....	10,089 24
.....	228 00	*p* 700 00	.....	.....	788 39	.....	1,716 39	1863	10,612 42	.....	10,612 42
.....	228 00	*y* 800 00	$480 00	.....	882 31	.....	2,390 31	1864	10,802 45	.....	10,802 45
.....	228 00	*y* 800 00	480 00	.....	888 55	.....	2,396 55	1865	11,215 73	.....	11,215 73
.....	228 00	*y* 800 00	480 00	.....	.....	.....	1,508 00	1866	11,220 00	$50 00	11,270 00
.....	228 00	*y* 800 00	480 00	.....	.....	.....	1,508 00	1867	11,102 20	.....	11,102 20
.....	228 00	*y* 800 00	480 00	.....	1,374 47	.....	2,882 47	1868	11,810 54	.....	11,810 54
.....	228 00	*y* 800 00	480 00	.....	957 97	.....	2,465 97	1869	12,374 13	.....	12,374 13
.....	228 00	*y* 800 00	480 00	.....	784 67	.....	2,292 67	1870	11,957 88	.....	11,957 88
.....	228 00	*y* 800 00	480 00	.....	756 41	.....	2,264 41	1871	8,899 00	13,568 65	22,467 65
.....	228 00	*y* 800 00	480 00	.....	578 76	.....	2,086 76	1872	13,078 65	5,812 38	18,891 03
.....	228 00	*y* 800 00	480 00	.....	771 85	.....	2,279 85	1873	11,830 78	100 85	11,931 63
.....	228 00	*y* 800 00	480 00	.....	2,120 74	.....	3,628 74	1874	11,539 20	1,874 03	13,413 23
.....	228 00	*y* 800 00	480 00	.....	658 85	.....	2,166 85	1875	11,123 63	.....	11,123 63
.....	228 00	*y* 800 00	480 00	.....	1,400 59	.....	2,908 59	1876	12,479 26	2,058 56	14,537 82
.....	228 00	*y* 800 00	480 00	.....	1,372 41	.....	2,880 41	1877	12,655 55	3,123 08	15,778 63
.....	228 00	*y* 800 00	480 00	.....	786 21	.....	2,294 21	1878	9,615 13	50 00	9,665 13
.....	228 00	*y* 800 00	480 00	.....	747 11	.....	2,255 11	1879	11,241 75	598 08	11,839 83
.....	228 00	*y* 800 00	480 00	.....	762 49	.....	2,270 49	1880	10,391 50	.....	10,391 50
.....	228 00	*y* 800 00	480 00	.....	589 13	.....	2,097 13	1881	11,420 56	.....	11,420 56
.....	228 00	*y* 800 00	480 00	.....	651 02	$4,814 52	6,973 54	1882	11,471 31	2,550 00	14,021 31
.....	228 00	*y* 800 00	480 00	.....	761 20	*	2,269 20	1883	11,368 45	.....	11,368 45
.....	228 00	*y* 800 00	480 00	.....	740 70	*	2,248 70	1884	12,438 18	.....	12,438 18
.....	228 00	*y* 800 00	480 00	.....	773 20	*	2,281 20	1885	12,602 35	.....	12,602 35
.....	228 00	*y* 800 00	480 00	.....	622 18	1,548 03	3,678 21	1886	12,552 70	.....	12,552 70
.....	228 00	*y* 800 00	480 00	.....	597 00	1,924 50	4,029 50	1887	12,565 95	.....	12,565 95
.....	228 00	*y* 800 00	480 00	.....	602 90	*	2,110 90	1888	12,557 75	.....	12,557 75
.....	228 00	*y* 800 00	480 00	.....	704 95	*	2,212 95	1889	12,054 60	.....	12,054 60
.....	228 00	*y* 800 00	480 00	.....	569 90	*	2,077 90	1890	12,922 75	.....	12,922 75
.....	228 00	*y* 800 00	480 00	.....	612 92	1,699 31	3,820 23	1891	12,873 40	.....	12,873 40
.....	228 00	*y* 800 00	480 00	.....	674 80	*	2,182 80	1892	12,822 80	.....	12,822 80
.....	228 00	*y* 800 00	480 00	.....	666 50	*	2,174 50	1893	12,840 60	.....	12,840 60
.....	228 00	*y* 800 00	480 00	.....	666 00	*	2,174 00	1894	12,632 40	.....	12,632 40
.....	228 00	*y* 800 00	480 00	.....	676 90	*	2,184 90	1895	6,731 00	.....	6,731 00
.....	228 00	*y* 800 00	480 00	.....	666 00	*	2,174 00	1896	20,626 70	.....	20,676 70
.....	228 00	*y* 800 00	480 00	.....	684 30	*	2,192 30	1897	14,398 15	.....	14,398 15
.....	228 00	*s*1,350 00	600 00	.....	661 10	*	2,839 10	1898	15,280 25	.....	15,280 25
.....	228 00	900 00	600 00	.....	718 53	*	2,446 53	1899	15,227 10	.....	15,227 10
.....	228 00	900 00	600 00	.....	642 55	187 81	2,558 36	1900	15,654 35	.....	15,654 35
.....	228 00	900 00	600 00	.....	639 60	148 33	2,515 93	1901	15,713 65	.....	15,713 65
.....	228 00	900 00	600 00	$87 60	675 00	1,213 55	3,704 15	1902	16,022 70	.....	16,022 70
.....	228 00	900 00	600 00	91 50	634 14	643 10	3,096 74	1903	15,868 50	.....	15,868 50
.....	228 00	900 00	1,000 00	63 40	916 58	514 44	3,622 42	1904	16,716 20	.....	16,716 20
.....	228 00	900 00	1,000 00	.....	1,045 96	769 60	3,943 56	1905	16,737 50	.....	16,737 50
.....	228 00	900 00	1,000 00	158 50	1,027 96	323 95	3,638 41	1906	16,820 70	.....	16,820 70
.....	228 00	900 00	1,000 00	.....	1,149 53	200 69	3,478 22	1907	17,035 80	16 00	17,051 80
.....	228 00	900 00	999 97	139 60	674 93	8,248 06	11,190 56	1908	17,130 30	.....	17,130 30
.....	228 00	900 00	1,499 98	138 80	443 68	14,689 94	17,900 40	1909	17,335 00	25 00	17,360 00
.....	228 00	900 00	1,500 00	138 80	336 85	126 52	3,230 17	1910	17,019 90	.....	17,019 90
.....	228 00	900 00	1,500 00	136 00	330 91	1,810 29	4,905 20	1911	17,209 40	.....	17,209 40
$78,187 13	$24,624 00	$43,050 00	$29,419 95	$954 20	$39,796 68	$38,862 64	$254,894 60	Total.....	$702,342 00	$29,826 63	$732,168 62

* Figures not obtainable.
g Ground rent owned by the Commissioners of Finance of Baltimore city.
y Clerk, $450; assistant clerk, $350.
s Clerk, $750; assistant clerk, $600.
p Clerk, $400; assistant clerk, $300.

NORTHEAST MARKET.

Historical.

The Northeast Market property was demised and leased to the M. & C. C. of Baltimore by a lease for 99 years, renewable from Winfield S. Booker, dated September 8, 1880, and recorded in F. A. P. 849, folio 13, at and under the yearly rent of $1,200, subject to the payment of an annual ground rent of $1,200, payable quarterly and redeemable at any time for the sum of $20,000. This ground rent was purchased for the benefit of the sinking fund; see deed from Ellen M. Turnbull, dated August 1, 1881, and recorded in F. A. P. 906.31.

Resolution No. 282, June 28, 1878—Comptroller authorized to advertise for a site for a new market-house in the northeastern section of the city.

Resolution No. 169, May 28, 1879—Mayor and Comptroller authorized to lease for the purpose of building a market-house, the present site of the Northeast Market, subject to ground rent of $1,200 per annum, and redeemable at 6 per cent., at pleasure, by the Mayor and City Council of Baltimore; ground rent to commence January 1, 1880.

Ordinance No. 39, April 12, 1884—Provided for erection of Northeast Market house, and $10,500 appropriated.

Location—Monument, Chester and McElderry streets and Duncan alley.

Dimensions—123 feet 3 inches by 336 feet 3 inches by 123 feet 3 inches by 136 feet 3 inches.

NORTHEAST MARKET.

Debits.							Credits.			
Ground Rent.g	Cost of Lot and Structure.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improve-ments.	Total.	Year.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
$1,200 00	Lot,	.....	.....	.....	.....	.....	$1,200 00	1880	.....	.....	.....
1,200 00	$20,000 00	.....	.....	.....	.....	.....	21,200 00	1881	.....	.....	.....
1,200 00	.....	.....	.....	.....	.....	.....	1,200 00	1882	.....	.....	.....
1,200 00	Structure,	.....	.....	.....	.....	.....	1,200 00	1883	.....	.....	.....
1,200 00	10,477 18	.....	.....	.....	.....	.....	11,677 18	1884	.....	.....	.....
1,200 00	.....	$400 00	.....	*	$749 25	.....	2,349 25	1885	$1,074 85	$5,730 00	$6,804 85
1,200 00	Structure,	400 00	.....	*	181 50	.....	1,781 50	1886	1,771 40	.....	1,771 40
1,200 00	8,995 75	400 00	.....	*	184 95	.....	10,780 70	1887	1,789 90	.....	1,789 90
1,200 00	.....	400 00	.....	*	178 00	.....	1,778 00	1888	2,531 05	.....	2,531 05
1,200 00	.....	400 00	.....	*	285 50	.....	1,885 50	1889	2,378 40	.....	2,378 40
1,200 00	.....	400 00	.....	*	308 75	.....	1,908 75	1890	2,272 60	.....	2,272 60
1,200 00	.....	400 00	.....	*	311 35	$499 80	2,411 15	1891	2,126 20	.....	2,126 20
1,200 00	.....	400 00	.....	*	315 72	.....	1,915 72	1892	1,991 55	.....	1,991 55
1,200 00	.....	400 00	.....	*	308 65	.....	1,908 65	1893	1,892 20	.....	1,892 20
1,200 00	.....	400 00	.....	*	313 25	.....	1,913 25	1894	1,691 30	.....	1,691 30
1,200 00	.....	400 00	.....	*	316 75	.....	1,916 75	1895	1,605 10	.....	1,605 10
1,200 00	.....	400 00	.....	*	369 00	.....	1,969 00	1896	1,625 20	.....	1,625 20
1,200 00	.....	400 00	.....	*	340 35	.....	1,940 35	1897	1,639 50	.....	1,639 50
1,200 00	.....	400 00	.....	*	317 05	.....	1,917 05	1898	1,764 20	.....	1,764 20
1,200 00	.....	400 00	.....	*	354 25	.....	1,954 25	1899	1,781 60	.....	1,781 60
1,200 00	.....	400 00	.....	*	325 30	5 35	1,930 65	1900	2,076 05	.....	2,076 05
1,200 00	.....	400 00	.....	*	322 63	4,250 30	6,172 93	1901	2,278 75	.....	2,278 75
1,200 00	.....	400 00	.....	*	320 15	49 07	1,969 22	1902	2,261 95	166 00	2,427 95
1,200 00	.....	400 00	.....	*	299 65	23 75	1,923 40	1903	2,250 98	300 00	2,550 98
1,200 00	.....	399 96	.....	$95 10	318 56	104 47	2,118 09	1904	2,297 95	.....	2,297 95
1,200 00	.....	400 00	.....	.....	320 26	422 53	2,342 79	1905	2,383 65	.....	2,383 65
1,200 00	.....	400 00	.....	.....	310 77	274 66	2,185 43	1906	2,511 30	.....	2,511 30
1,200 00	.....	400 00	.....	.....	317 10	236 38	2,153 48	1907	2,632 15	.....	2,632 15
1,200 00	.....	399 80	$300 00	.....	19 00	653 40	2,572 28	1908	2,814 95	.....	2,814 95
1,200 00	.....	400 12	300 00	.....	19 33	151 12	2,070 59	1909	3,036 90	.....	3,036 90
1,200 00	.....	400 03	300 00	.....	23 86	567 70	2,491 59	1910	3,098 65	.....	3,098 65
1,200 00	.....	400 00	300 00	80 00	24 05	626 06	2,630 11	1911	2,989 40	.....	2,989 40
$38,400 00	$39,472 93	$10,799 99	$1,200 00	$175 10	$7,455 00	$7,864 59	$105,367 61	Total....	$58,567 73	$6,196 00	$64,763 73

g Ground rents owned by the Commissioners of Finance of Baltimore City.
*Indicates figures not ascertainable.

RICHMOND MARKET.

Historical.

Lot.

By Act of 1831, Chapter 327, Commissioners were appointed to condemn lot of ground bounded by Howard, Richmond, Garden and Biddle streets, and $4,947.24 was paid for this in 1834.

By Act of 1833, Chapter 35, the city was given power to build a market-house.

Ordinance No. 107, 1853—Provided for appointment of Condemnation Commissioners to secure additional ground—from east corner of Howard and Richomnd streets to Cathedral, then to Tyson, and thence to Richmond, and thence to beginning. Three hundred dollars was appropriated for services of Commissioners.

Resolution No. 158 and Ordinance No. 78, 1868—Provided for securing additional ground for market. The ground (14 different parcels) was secured by condemnation proceedings at a total cost of $60,795.93. This ground was bounded as follows: on the north by the southernmost side of Market Space, on the east by Howard street, on the west by Garden street, and on the south by a straight line drawn from a point on the east side of Garden street distant 188 feet and 9 inches south of Market Space to a point on the west side of Howard street, distant 189 feet and 3 inches south of Market Space.

Structure.

By Act of 1833, Chapter 35, the city was given authority to erect a market-house, and Resolution No. 39, 1834, made provision for it.

The appropriations have been as follows:

1834 to 1847, market-houses, etc	$3,469 93
1856 to 1892, hose	450 00
1856 to 1898, repairs, etc	10,391 00
1870, Resolution No. 201, new additional market-house	12,000 00
1871, Resolution Nos. 172 and 266, release from damage on account of building contract	4,000 00
1873, Resolution No. 448, new market-house in place of old one,	30,000 00
1891, Ordinance No. 74 and Resolution No. 237, paving	9,066 88
Total	$69,377 81

Location—Howard, from Armory Place to Biddle street.

RICHMOND MARKET.

Debits.							Credits.			
Cost of Lot.	Cost of Structure.	Salary of Clerk or Assistant Market-master.	Salary of Cleaner.	Hose.	Expenses.	Repairs and Improvements.	Total.	Year.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
.....	$116,402 94	.....	.....	.....	.....	.....	$116,402 94	.....	.....	.....	.....
.....	Various years.	$200 00	.....	.....	$94 70	.....	294 70	1857	$820 79	.....	$820 79
.....	.....	200 00	.....	.....	119 73	.....	319 73	1858	961 88	.....	961 88
.....	.....	200 00	.....	.....	134 47	.....	334 47	1859	939 03	.....	939 03
.....	.....	200 00	.....	.....	142 86	.....	342 86	1860	970 85	.....	970 85
.....	.....	200 00	.....	.....	197 52	.....	397 52	1861	1,054 66	.....	1,054 66
.....	.....	200 00	.....	.....	120 40	.....	320 40	1862	1,019 22	.....	1,019 22
.....	.....	250 00	$120 00	.....	.....	.....	370 00	1863	1,059 62	.....	1,059 62
.....	.....	250 00	120 00	.....	195 60	.....	565 60	1864	1,101 15	.....	1,101 15
.....	.....	250 00	120 00	.....	.....	.....	370 00	1865	1,169 34	.....	1,169 34
.....	.....	250 00	120 00	.....	.....	.....	370 00	1866	1,209 53	.....	1,209 53
.....	.....	250 00	120 00	.....	509 04	.....	879 04	1867	1,264 04	.....	1,264 04
c$2,531 70	.....	250 00	120 00	.....	221 30	.....	3,123 00	1868	1,389 11	.....	1,389 11
c69,247 03	.....	250 00	120 00	.....	332 00	.....	69,949 03	1869	1,680 21	.....	1,680 21
.....	.....	250 00	120 00	.....	199 35	.....	569 35	1870	†4,261 57	.....	4,261 57
.....	.....	250 00	120 00	.....	213 00	.....	583 00	1871	1,674 78	.....	1,674 78
.....	.....	450 00	240 00	.....	539 25	.....	1,229 25	1872	1,915 86	.....	1,915 86
.....	.....	450 00	240 00	.....	379 14	.....	1,069 14	1873	2,817 65	$37,638 64	40,456 29
.....	.....	450 00	240 00	.....	380 15	.....	1,070 15	1874	3,251 96	6,144 20	9,396 16
.....	.....	450 00	240 00	.....	460 10	.....	1,150 10	1875	3,628 94	11,078 93	14,707 87
.....	.....	450 00	240 00	.....	583 59	.....	1,273 59	1876	3,900 02	6,978 48	10,878 50
.....	.....	450 00	240 00	.....	448 90	.....	1,138 90	1877	3,768 47	6,519 69	10,288 16
.....	.....	450 00	360 00	.....	537 65	.....	1,347 65	1878	3,891 13	.....	3,891 13
.....	.....	450 00	360 00	.....	562 65	.....	1,372 65	1879	3,961 42	167 20	4,128 62
.....	.....	450 00	360 00	.....	464 40	.....	1,274 40	1880	3,883 48	4,494 81	8,378 29
.....	.....	450 00	360 00	.....	422 98	.....	1,232 98	1881	3,623 20	269 10	3,892 30
.....	.....	450 00	360 00	.....	415 55	.....	1,225 55	1882	3,655 69	.....	3,655 69
.....	.....	450 00	360 00	.....	428 13	.....	1,238 13	1883	3,679 10	.....	3,679 10
.....	.....	450 00	360 00	.....	502 70	.....	1,312 70	1884	3,869 49	.....	3,869 49
.....	.....	450 00	360 00	.....	417 90	$1,156 50	2,384 40	1885	4,286 82	.....	4,286 82
.....	.....	450 00	360 00	.....	394 00	*	1,204 00	1886	3,726 15	.....	3,726 15
.....	.....	450 00	360 00	.....	412 70	*	1,222 70	1887	3,147 36	.....	3,147 36
.....	.....	450 00	360 00	.....	517 30	*	1,327 30	1888	2,582 17	.....	2,582 17
.....	.....	450 00	360 00	.....	461 45	*	1,271 45	1889	2,228 00	.....	2,228 00
.....	.....	450 00	360 00	.....	422 75	132 30	1,365 05	1890	2,210 65	.....	2,210 65
.....	.....	450 00	360 00	.....	413 00	*	1,223 00	1891	2,224 95	.....	2,224 95
.....	.....	450 00	360 00	.....	413 40	3,300 00	4,523 40	1892	2,091 35	.....	2,091 35
.....	.....	450 00	360 00	.....	409 25	*	1,219 25	1893	1,846 90	.....	1,846 90
.....	.....	450 00	360 00	.....	399 75	*	1,209 75	1894	1,757 05	.....	1,757 05
.....	.....	450 00	360 00	.....	383 56	*	1,193 56	1895	1,630 20	.....	1,630 20
.....	.....	450 00	360 00	.....	416 05	*	1,226 05	1896	3,250 10	.....	3,250 10
.....	.....	450 00	360 00	.....	410 75	*	1,220 75	1897	4,033 65	.....	4,033 65
.....	.....	450 00	360 00	.....	449 26	*	1,259 26	1898	3,995 40	.....	3,995 40
.....	.....	450 00	360 00	.....	419 99	518 64	1,748 63	1899	3,828 30	.....	3,828 30
.....	.....	450 00	360 00	.....	381 20	2,953 81	4,145 01	1900	3,961 50	.....	3,961 50
.....	.....	450 00	360 00	.....	394 20	517 98	1,722 18	1901	3,882 70	.....	3,882 70
.....	.....	450 00	360 00	.....	374 85	342 89	1,622 84	1902	4,245 65	1 00	4,246 65
.....	.....	450 00	360 00	$95 10	389 00	70 12	1,269 12	1903	3,810 90	.....	3,810 90
.....	.....	450 00	420 00	63 40	418 33	.....	1,351 73	1904	3,959 95	.....	3,959 95
.....	.....	450 00	420 00	63 40	440 75	231 80	1,605 95	1905	3,946 60	.....	3,946 60
.....	.....	450 00	420 00	69 40	472 90	586 61	1,998 91	1906	3,890 50	.....	3,890 50
.....	.....	450 00	420 00	69 40	50 30	6,595 88	7,585 58	1907	3,759 05	.....	3,759 05
.....	.....	450 00	420 00	87 40	33 55	5,629 31	6,620 26	1908	3,823 70	.....	3,823 70
.....	.....	450 00	420 00	104 10	61 15	406 67	1,441 92	1909	3,996 15	.....	3,996 15
.....	.....	450 00	420 00	54 00	58 30	1,158 45	2,140 75	1910	3,996 50	.....	3,996 50
								1911	3,896 55	.....	3,896 55
$71,778 73	$116,402 94	$21,000 00	$14,820 00	$606 20	$18,020 80	$23,600 96	$266,129 63	Total....	$156,430 99	$73,292 05	$229,723 04

* Figures not obtainable.
c By condemnation proceedings.
† Includes $2,547.22, sale of old material.
In 1904, $15,000 was appropriated for repairs to Richmond Market Hall, and the same was expended as follows, and is not included in above statement: 1904, $9,374.96; 1905, $874.23; 1906, $4,750.81, total, $15,000. The hall is now used by the Naval Reserves.

SUMMARY OF THE MARKETS, 1857 TO 1911, AND ALSO INCLUDING OTHER ASCERTAINABLE CHARGES PRIOR TO 1857, AS SHOWN ON THE SEPARATE SHEETS.

	Debits.								Credits.		
Markets.	Cost of Ground.	Cost of Structures.	Ground Rents.*	Salaries of Clerks or Assistant Market-masters.	Salaries of Cleaners.	Hose and Expenses.	Repairs and Improve-ments.	Total.	Licenses, Rents and Per Diems.	Sale of Stalls.	Total.
Centre.....	$161,223 83	$533,799 83	.....	$65,685 00	$29,880 00	†$733 91 ‡55,647 99 †753 60	$21,156 23	$868,126 79	$480,564 69	.....	$480,564 69
Fells Point	Donated.	62,871 96	.....	39,550 00	21,600 00	‡28,722 01 †954 20	54,678 89	208,176 46	340,790 66	$38,865 80	379,656 46
Lexington.	21,800 00	56,387 13	$24,624 00	43,050 00	29,419 95	‡39,796 68 †420 00	38,862 64	254,894 60	702,342 00	29,826 63	732,168 63
Belair.....	35,088 33	19,260 45	.....	36,950 00	22,020 00	‡33,366 49 †606 20	40,931 99	188,037 26	490,353 42	28,190 22	518,543 63
Richmond.	71,778 73	116,402 94	.....	21,000 00	14,820 00	‡18,020 80 †506 70	23,600 96	266,129 63	156,430 99	73,282 05	229,723 04
Cross St...	8,116 67	56,106 52	65,248 00	32,749 78	11,490 00	‡18,118 03 †635 55	25,264 86	217,600 56	160,607 24	37,510 12	198,117 36
Hanover...	8,016 27	25,001 43	.....	24,400 00	17,840 00	‡30,474 77 †563 45	13,094 16	119,462 18	270,280 95	2,082 17	272,363 12
Hollins....	Donated.	29,871 16	.....	24,050 12	12,499 84	‡22,056 39 †468 25	7,601 09	96,642 05	162,278 11	12,386 39	174,664 50
Lafayette..	28,993 24	31,137 15	.....	15,000 00	9,180 00	‡9,356 40 †175 10	11,059 93	105,194 97	70,743 99	49,564 10	120,308 09
Northeast..	20,000 00	19,472 93	38,400 00	10,799 99	1,200 00	‡7,455 00 †212 55	7,864 59	105,367 61	58,567 73	6,196 00	64,763 73
Canton.....	Donated.	8, 613 15	.....	11,099 57	2,795 23	‡4,618 65	2,645 77	29,984 92	12,942 32	1,615 00	14,557 32
Miscel.....	.....	.....	.....	.....	.....	†6,029 51	.....	.....	.....	§22,488 14	22,488 14
Total....	$355,017 07	$958,924 65	$128,272 00	$324,334 46	$172,745 02	$267,633 21	$246,761 11	$2,459,617 03	$2,905,902 10	$302,016 61	$3,207,918 71
Mkt. Halls.	.....	.....	.....	.....	.....	$17,928 77	.....	$17,928 77	$28,516 94	.....	$28,516 94

*Ground rents owned by the Commissioners of Finance of Baltimore city.
†Hose.
‡Expenses.
§Miscellaneous includes sales of stalls not segregated, viz.: 1857, $14,287.26; 1858, $5,924.75; 1859, $782.40; 1860, $1,493.73; total, $22,488.14.

DOCKS AND WHARVES.

DREDGING HARBOR A—VI (42).

Appropriation		$40,657 00
Balance brought forward from 1910		1,965 43
Total credit		$42,622 43

EXPENDITURES.

Dredging		$26,810 10	
Advertising		75 07	
Supervision of dredging		2,136 76	
Surveys		3,502 37	
Derrick scow		1,965 43	
Anchorage buoys		524 68	
Department shed		414 85	
Department launch		2 33	
Harbor patrol		112 04	
Account harbor tube		6 10	
Tug "Baltimore:"			
Crew	$5,212 00		
Fuel	667 61		
Repairs	708 91		
Steamboat supplies	465 47		
Subsistence	17 64		
		7,071 63	
Total expenditures			42,621 36
Surplus of credit			$1 07
Balance to surplus, 1911			1 07

ICEBOATS A—VI (42).

Original Appropriation		$20,030 00
Received from State of Maryland		5,000 00
Received from Gardners' Club		75 00
Total credit		$25,105 00

EXPENDITURES.

	"Annapolis."	*"Latrobe."*	
Advertising	$34 01	$34 00	
Crew	6,713 43	8,705 08	
Fuel	457 35	474 72	
Steamboat supplies	728 74	526 38	
Repairs	2,037 94	3,829 98	
Subsistence	191 28	84 24	
Department launch	124 10	.....	
Capstan	263 00	.....	
Windlass	610 12	.....	
Telephone	7 70	7 70	
Searchlight	.....	271 50	
	$11,167 67	$13,933 60	
Total expenditures			25,101 27
Surplus of credit			$3 73
Balance to surplus, 1911			3 73

REPAIRS TO WHARVES A—VI (42).

Appropriation		$9,560 00
Balance brought forward from 1910		1,784 80
Received from Industrial Works, Bay City, Mich		12 06
Received from Street Cleaning Department		1,545 67
Total credits		$12,902 53

EXPENDITURES.

Advertising	$20 93	
Lumber	225 18	
Tools	171 69	
Pier 8	105 10	
Garbage dump	1,325 67	
Repairs, Back Basin	1,909 02	
Derrick scow	3,836 99	
Bulkhead, Marine Hospital	13 34	
Department launch	77 37	
Repairs, Quarantine	18 51	
Small pier, foot Calvert street	248 37	
Light Street Bridge	2,569 84	
	$10,522 01	
Supervision	1,200 00	
Total expenditures		11,722 01
Surplus of credit		$1,180 52
Balance to surplus, 1911		1,180 52

REMOVAL OF ASHES A—VI (42).

Appropriation		$1,100 00

EXPENDITURES.

Supervision	$600 00	
Supplies	29 76	
Repairs	152 78	
New boat	24 00	
Total expenditures		806 54
Surplus of credit		$293 46
Balance to surplus, 1911		293 46

REMOVAL OF FLOATING MATTER A—VI (42).

Appropriation		$1,935 00

EXPENDITURES.

Outfit	$41 32	
Wages	1,889 49	
Total expenditures		1,930 81
Surplus of credit		$4 19
Balance to surplus, 1911		4 19

BULKHEAD, OLD MARINE HOSPITAL A—VI (42).

Appropriation		$18,000 00
EXPENDITURES.		
Advertising	$39 53	
Engineering supplies	4 98	
Supervision	751 83	
McLean Contracting Company	11,401 58	
Total expenditures		12,197 92
Surplus of credit		$5,802 08
Balance carried forward to 1912		5,802 08

RENTS FROM CITY DOCKS AND PIERS A—VI (42).

RECEIPTS.

Merchants and Miners Transportation Company	$40,000 00
Baltimore, Chesapeake and Atlantic Railway Company	16,097 60
United Fruit Company	15,071 04
Atlantic Fruit Company	9,665 48
Lanassa and Goffe Steamship and Importing Company	7,002 18
Baltimore and Philadelphia Steamboat Company	10,000 00
Martin Wagner Company	2,910 15
Standard Oil Company	4,321 96
Baltimore Steam Packet Company	17,875 08
Arundle Sand and Gravel Company	7,158 24
Maryland, Delaware and Virginia Railway Company	1,462 50
Baltimore Yacht Club	162 50
Davidson Chemical Company	50 00
Skinner Shipbuilding and Drydock Company	50 00
J. Kemp Bartlett	15 00
C. C. Cottman	50 00
Total receipts	$131,891 73
Paid into City Treasury	131,891 73

RECEIPTS FROM WHARFAGE FOR THE YEAR ENDING DECEMBER 31, 1911 A—VI (42).

Months.	1st District.	2d District.	3d District.	4th District.	5th District.	Total.
January	$112 02	$1,818 20	.....	$176 66	$2,370 80	$4,477 68
February	87 01	1,021 42	.....	176 66	2,661 17	3,946 26
March	117 12	1,124 06	.....	176 66	2,401 82	3,819 66
April	147 02	831 26	.....	59 33	3,110 71	4,148 32
May	101 05	789 65	.....	239 99	2,877 21	4,007 90
June	118 22	927 25	.....	214 66	2,783 69	4,043 82
July	115 12	962 11	.....	231 32	2,788 66	4,097 21
August	83 27	854 91	.....	138 00	2,800 52	3,876 70
September	125 17	1,314 27	.....	176 66	2,206 70	3,822 80
October	115 47	1,097 00	.....	176 66	2,560 27	3,949 40
November	106 12	998 25	.....	211 74	1,894 46	3,210 57
December	133 17	785 23	.....	186 66	2,457 21	3,562 27
1911	$1,360 76	$12,523 61	.....	$2,165 00	$30,913 22	$46,962 59
1910	$1,413 24	$11,883 78	.....	$2,307 42	$24,604 81	$40,209 25

Gross receipts		$46,962 59
EXPENDITURES.		
Amount paid Harbor Masters	$9,392 49	
Amount paid Consolidated Gas Electric Light and Power Company	61 04	
Total expenditures		9,453 53
Net receipts, 1911		$37,509 06
Net receipts, 1910		32,161 48
Increase, 1911		$5,347 58

Harbor Master, William L. Hooper, *Chief.*

ASSISTANTS.

P. S. McConnor.....First District.
J. O. Stafford.....Second District.
Jesse F. Hall.....Third District.
Conrad Dickhaut.....Fourth District.
Robert Snyder.....Fifth District.

HARBOR BOARD REVENUE A—VI (42).

Received from sale of old material	$48 10
Paid into City Treasury	48 10

PLANNING EXHIBIT HARBOR BOARD A—VI (42.)

Transferred from Contingent Fund	$200 00
Paid John J. Kirkness, Sr	200 00

PUBLIC WHARVES AND DOCKS A—VI (42).

Appropriation, salaries		$19,068 00
EXPENDITURES.		
Engineers	$3,803 33	
Inspectors, transit party, etc	2,774 00	
Dredging supervision	2,193 19	
Draftsmen and computer	1,908 00	
Stenographer	1,080 00	
Launch "Major"	420 66	
Watchmen	680 00	
Office work	112 00	
Total expenditures		12,971 68
Surplus of credit		$6,096 32
Balance to Loan		6,096 32

PUBLIC WHARVES AND DOCKS—CONSTRUCTION A—VI (42).

Appropriation			$112,000 00
Balance brought forward from 1910			105,298 27
Received from Standard Oil Co			157 88
Total credits			$217,456 15
EXPENDITURES.			
Launch "Major"—			
Repairs	$239 84		
Supplies	397 91	$637 75	
Engineering supplies		184 31	
Dredging supplies		19 05	
Changing cleats, Pier 5		31 66	
Cutting bulkhead, Pier 6		6 32	
Repairing valve, Pier 5		11 79	
Repairing bulkhead, Pier 5		188 30	
Repairing fenders, East Falls avenue and Piers 4, 5 and 6		250 83	
Paving Pier 4 (City Engineer's Department)		312 98	
Paving Pier 5		115 40	
Paving Pier 6 (D. V. Ault & Co)		7,049 34	
Paving Pier 6, extra		20 90	
Paving Pier 1		59 50	
Painting fence, Pratt street bulkhead		50 00	
Pure food exhibit		123 34	
Amounts carried forward		$9,061 47	$217,456 15

Amounts brought forward		$9,061 47	$217,456 15
Soundings, Jones' Falls		18 33	
Soundings, Piers 1 to 6		38 00	
Dredging Jones' Falls		5,884 10	
Dredging docks (Pratt street)		529 50	
Filing cases in vault		433 85	
Stamps		10 00	
Operator for lantern		10 00	
Annex office—			
Repairs	$52 68		
Telephone	42 00		
Towel service	22 50		
Heat	50 00		
Supplies	21 89		
		189 07	
Work on Pier 2 for Standard Oil Co		150 45	
Sanford & Brooks Company		200,652 97	
Total expenditures			216,977 74
Surplus of credit			$478 41
Balance to loan			478 41

RECREATION PIER, EAST OF BROADWAY A—VI (42).

Appropriation			$400,000 00
EXPENDITURES.			
Title examining, recording, etc		$2,848 48	
Advertising		12 95	
Engineering supplies		34 15	
Printing		6 50	
Stamps		5 00	
Test piles		94 84	
Engineers, rodmen, etc		264 34	
Total expenditures			3,266 26
Surplus of credit			$396,733 74
Balance carried forward to 1912			396,733 74

PROPERTY AND PIER SOUTH SIDE OF HARBOR A—VI (42).

Appropriation			$300,000 00
Rents collected, etc			830 46
Total credit			$300,830 46
EXPENDITURES.			
Property		$142,630 16	
Title examining, recording, etc		4,720 77	
Advertising		102 66	
Engineering supplies		94 15	
Printing		6 50	
Amounts carried forward		$147,554 24	$300,830 46

Amounts brought forward	$147,554 24	$300,830 46
Stamps	5 00	
Test holes	510 81	
Lunch (Special Board meeting)	12 35	
Engineers, inspectors, etc	452 67	
Total expenditures		$148,535 07
Surplus of credit		$152,295 39
Balance carried forward to 1912		152,295 39

SUBWAYS FOR PIPES AND WIRES—ELECTRICAL COMMISSION A—VI (43).

Appropriation, salaries (Conduit Loan 1958)	$18,330 00

EXPENDITURES.

Salaries to December 15, 1911:		
Chief Engineer, R. C. Thomas	$2,000 08	
Assistant Engineer, G. B. Roberts	1,666 67	
Superintendent of Construction, G. J. Lyons	2,160 00	
Assistant Superintendent of Construction, W. R. Mitchell	50 00	
Assistant Superintendent of Construction, E. F. Beauchamp	1,437 50	
General Foreman, Charles Carroll	1,166 66	
Paymaster, W. S. Rice	1,108 35	
Paymaster, W. A. Mentzel	291 65	
Assistant Paymaster, W. A. Mentzel	945 00	
Assistant Paymaster, J. W. Thompson	250 00	
Chief Clerk, C. H. Otte	870 83	
Chief Clerk, J. W. Nichol, Jr	500 00	
Bookkeeper, A. R. Johnson	1,000 00	
Chief Draftsman, G. W. Myer	750 00	
Chief Draftsman, J. S. B. Daingerfield	450 00	
Chief Cable Inspector, E. F. Beauchamp	62 50	
Chief Cable Inspector, W. R. Mitchell	625 80	
Total expenditures		15,335 04
Surplus of credit		$2,994 96
Balance to Conduit Loan, 1958		2,994 96

Appropriation, expenses	$211,500 00
House connections, wages returned and sale of material	6,515 47
Total credits	$218,015 47

EXPENDITURES.

Advertising	$220 17	
Bricks	3,255 93	
Cement	6,068 06	
Castings	4,241 92	
Fibre conduit	3,998 75	
Amounts carried forward	$17,784 83	$218,015 47

Amounts brought forward	$17,784 83	$218,015 47
Stone	149 89	
Sand and gravel	11,826 35	
Terra cotta conduit	21,525 40	
Lumber	1,393 86	
Car fare	750 68	
Drawing material	709 45	
Freight and hauling conduit	2,108 26	
Hire of horse	369 00	
Premiums on bonds	78 99	
Rental of store-yard	125 00	
Office supplies, printing, stationery and telephone	1,187 50	
Professional services	265 00	
Rebates, deposits on house connections	100 04	
Burlap, paints, oil and wax tailings	900 55	
Repairs, tools and miscellaneous supplies	1,970 70	
Store-yard material	1,191 44	
Paving	7,459 78	
Labor	147,780 31	
Total expenditures		217,677 03
Surplus of credit		$338 44
Balance to Conduit Loan, 1958		338 44

OPERATING AND MAINTENANCE OF CONDUITS COMPLETED A—VI (43).

Appropriation $8,646 00

EXPENDITURES.

Chief Engineer, R. C. Thomas	$1,999 92	
Labor	6,636 00	
Total expenditures		8,635 92
Surplus of credit		$10 08
Balance to surplus, 1911		10 08

RENTAL OF SUBWAYS A—VI (43).

RECEIPTS.

Baltimore and Ohio Railroad Company	$1,996 24
Baltimore Bargain House	252 49
Baltimore Electric Light & Power Company	98 10
Baltimore National Automatic Fire Alarm Co	999 15
Chesapeake & Potomac Telephone Company	362 78
Consolidated Gas Electric Light & Power Company	62,464 85
Crown Cork & Seal Company	50 00
Holmes Electric Protective Company	612 46
Maryland Telephone Company	13,078 55
Merchants & Miners' Transportation Company	23 92
Monticello Distilling Company	5 02
Northern Central Railway Company	212 69
Amount brought forward	$80,156 25

Amount brought forward	$80,156 25
Postal Telegraph-Cable Company	2,936 64
Swift & Company	63 14
United Railways & Electric Company	25,160 25
University of Maryland	35 95
Washington, Baltimore & Annapolis Electric Ry. Co.	700 31
Western Union Telegraph Company	3,972 03
Total receipts	$113,024 57
Paid into City Treasury	113,024 57

TELEPHONE CONDUITS A—VI (43).

Received of Chesapeake & Potomac Telephone Company	$32,297 55
Paid into City Treasury	32,297 55

TURNPIKE DIVIDENDS A—VI (44).

Received of Baltimore and Frederickstown Turnpike Co.	$13 70
Received of Baltimore & Reisterstown Turnpike Company	188 87
Total receipts	$202 57
Paid into City Treasury	202 57

6. PUBLIC EDUCATION, RECREATION AND ART

SCHOOLS—OFFICE A—VI (45).

Appropriation, salaries		$9,200 00
EXPENDITURES.		
Secretary, John H. Roche	$2,000 00	
First Assistant Secretary, F. N. Claridge	1,700 00	
Second Assistant Secretary, J. R. Jolly	1,500 00	
Third Assistant Secretary, H. C. Buckmeister	300 00	
Supervisor, B. B. Owens	2,000 00	
Clerk to Secretary, George J. Ahrling	8 30	
Clerk to Secretary, Wm. H. Barton	291 67	
Clerk to Supervisor, Chas. W. Braun	289 96	
Clerk to Supervisor, S. Edith Jones	50 00	
Clerk to Supervisor, Irvin B. Geidt	455 55	
Janitor, etc., Oscar Weems	600 00	
Total expenditures		9,195 48
Surplus of credit		$4 52
Balance to surplus, 1911		4 52

SCHOOLS—OFFICE EXPENSES A—VI (45).

Appropriation	$1,500 00

EXPENDITURES.

Ice	$45 92	
Expressage	6 12	
Postage	116 70	
Washing towels	6 25	
Gas and electric service	182 60	
Stationery and office supplies	594 64	
Furniture	83 50	
Fuel	168 77	
Repairs	56 69	
Directories	14 00	
Janitor supplies	17 74	
Incidentals	6 75	
Exchange of adding machine	75 00	
Typewriter	30 00	
Planting flower beds	32 91	
Repairs to electric clocks	20 75	
Painting signs	18 00	
Repairs to typewriters	5 50	
Cleaning carpets	6 16	
New towels	12 00	
Total expenditures		1,500 00

DAY SCHOOLS A—VI (45).

Appropriation, salaries	$1,503,113 00
Refund	93 07
	$1,503,206 07

EXPENDITURES.

Superintendent, J. H. Van Sickle	$3,333 33	
Superintendent, Francis A. Soper	1,666 67	
Assistant Superintendent, Henry A. Wise	1,666 67	
Assistant Superintendent, Charles J. Koch	833 33	
Assistant Superintendent, C. A. A. J. Miller	2,400 00	
Assistant to Superintendent, Henry S. West	2,000 00	
Director of School Attendance, Florence E. Pierce	100 00	
Supervisor of Music, H. G. Baker	1,471 25	
Assistant Supervisor of Music, Minnie A. Lang	894 00	
Assistant Supervisor of Music, Anna D. C. Krieger	898 50	
Assistant Supervisor of Music, C. B. Brown	683 23	
Assistant Supervisor of Music, May R. Muffly	15 00	
Amounts carried forward	$15,961 98	$1,503,206 07

Amounts brought forward		$15,961 98	$1,503,206 07
Supervisor of Manual Training, George M Gaither	1,975 00		
Supervisor of Practice Teaching, Persis K. Miller	800 00		
Special Critic, Florence E. Bamberger	550 50		
Special Critic, Carrie M. Sumwalt	600 00		
Stenographer, Grace B. Morton	800 00		
Clerk to Superintendent, Flora M. Pfoutzl	1,500 00		
Clerk, Lillian E. Thomas	600 00		
Clerk, Bertie Baum	600 00		
Clerk, Alice A. White	600 00		
Clerk, Miriam Graham	600 00		
Clerk, Minnie Brown	16 00		
Clerk in charge Warehouse, Walter L. Holloway	680 00		
Normal extension work	326 50		
Substitutes	29,604 77		
		$55,214 75	
Teachers' Training School (Colored):			
Principal, Joseph H. Lockerman, and of Group X			
Six assistants	$7,733 39		
		7,733 39	
Drawing Teachers:			
Supervisor, Olivia F. Keech	$1,197 00		
Eight teachers	6,711 23		
		7,908 23	
Sewing Teachers:			
Supervisor, Laura V. Davis	$894 00		
Twenty-nine teachers	16,815 54		
		17,709 54	
Physical Culture:			
Supervisor, C. F. E. Schultz	$1,500 00		
Two teachers	1,441 08		
		2,941 28	
Parental School:			
Two teachers	$1,156 64		
		1,156 64	
Summer School	$3,383 00		
		3,383 00	
Attendance Officers:			
Twelve officers	$8,598 09		
Substitutes	379 40		
		8,977 49	
Amounts carried forward		$105,024 32	$1,503,206 07

Amounts brought forward		$105,024 32	$1,503,206 07
Baltimore City College:			
Principal, Francis A. Soper	$2,000 00		
Principal, Wilbur F. Smith	1,000 00		
Thirty-six assistants	52,126 43		
Theme Reader, Lindsay Rogers	258 33		
Librarian, Alice W. Reins	525 00		
Assistant Librarian, Annie R. C. James	106 65		
Substitutes	1,580 59		
Engineers, janitors and janitresses	4,820 00		
		62,417 00	
Eastern High School:			
Principal, Ernest J. Becker	$2,400 00		
Vice-Principal, Laura V. DeValin	1,208 01		
Thirty-three assistants	30,593 59		
Theme Reader, Clara T. Riley	225 00		
Clerk, Madeline M. Thompson	467 34		
Librarian, Katherine G. Grasty	225 00		
Substitutes	789 50		
Engineers, janitors and janitresses	5,020 01		
		40,928 45	
Western High School:			
Principal, David E. Weglein	$2,591 34		
Forty-four assistants	38,678 05		
Theme Reader, Margaret W. Chase	137 50		
Librarian, Henrietta C. Adams	29 16		
Librarian, Mary S. Wallis	300 00		
Clerk, Elizabeth K. Scheldt	500 00		
Substitutes	623 84		
Engineers, janitors and janitresses	4,276 10		
		47,135 99	
Baltimore Polytechnic Institute:			
Principal, Wm. R. King	$3,000 00		
Forty-four assistants	61,499 16		
Theme Reader, Irene Reiner	225 00		
Clerk, Nathan Lebovitz	750 00		
Substitutes	290 00		
Firemen, janitors and janitresses	5,273 03		
		71,037 19	
Colored High School:			
Principal, Mason A. Hawkins	$2,400 00		
Vice-Principal, Dwight O. W. Holmes	1,594 96		
Thirty assistants	23,534 93		
Clerk, Annie E. Smith	600 00		
Substitutes	1,321 50		
Firemen, janitors and janitresses	2,040 00		
		31,491 39	
Amounts carried forward		$358,034 34	$1,503,206 07

Amounts brought forward		$358,034 34	$1,503,206 07
Teachers' Training School (White):			
Principal, Edward F. Buchner	$1,080 00		
Principal, Frank A. Manny	1,250 00		
Ten teachers	7,033 19		
Librarian, Margaret M. Coyne	457 00		
Clerk, Mary C. L. Casey	83 34		
		9,903 53	
Group A:			
Principal, Edkin Hebden	$2,000 00		
Eighty teachers	46,904 86		
Substitutes	585 20		
Engineer, firemen and janitresses	5,558 00		
		55,048 06	
Group B:			
Principal, Charles M. Elliott	$2,000 00		
Sixty-nine teachers	37,395 14		
Substitutes	473 40		
Firemen and janitresses	4,162 00		
		44,030 54	
Group C:			
Principal, Joseph C. Hands	$2,000 00		
Fifty-six teachers	48,004 47		
Engineer, firemen and janitresses	5,316 00		
		46,357 86	
Group D:			
Principal, C. Alex. Fairbank	$2,000 00		
One hundred teachers	62,179 80		
Substitutes	492 65		
Firemen and janitresses	6,428 00		
		71,100 45	
Group E:			
Principal, Charles J. Kocj	$1,331 69		
Seventy-six teachers	45,360 15		
Substitutes	573 60		
Engineer, firemen and janitresses	4,440 66		
		51,706 10	
Group F:			
Principal, Jacob Grape	$1,333 32		
Seventy-one teachers	45,823 21		
Substitutes	122 40		
Firemen and janitresses	5,589 60		
		52,868 53	
Amounts carried forward		$689,049 41	$1,503,206 07

Amounts brought forward		$689,049 41	$1,503,206 07
Group I:			
Principal, Wm. H. Tolson	$2,000 00		
Seventy-five teachers	50,293 98		
Engineers, firemen and janitresses	5,286 00		
		57,579 98	
Group J:			
Principal, Fred. J. Miller	$2,000 00		
Eighty-eight teachers	55,605 92		
Substitutes	144 00		
Engineer, firemen and janitresses	5,202 00		
		62,951 92	
Group K:			
Principal, Joseph S. Whittington	$2,000 00		
Sixty-eight teachers	45,814 66		
Substitutes	92 25		
Engineers, firemen and janitresses	5,096 00		
		53,002 91	
Group L:			
Principal, John S. Black	$1,000 00		
Eighteen teachers	7,122 61		
Firemen and janitresses	840 00		
		8,962 61	
Group M:			
Principal, Thomas C. Bruff	$1,987 94		
Sixty-seven teachers	43,104 10		
Substitutes	57 00		
Firemen and janitresses	6,218 90		
		51,367 94	
Group N:			
Principal, Judson Hunt	$2,000 00		
Eighty-nine teachers	58,596 42		
Substitutes	901 50		
Firemen and janitresses	5,463 60		
		66,961 52	
Group O:			
Principal, Samuel E. Keller	$2,000 00		
Fifty-three teachers	30,809 39		
Substitutes	90 75		
Firemen and janitresses	4,027 20		
		$36,927 34	
Group P:			
Principal, Rozell Berryman	$2,000 00		
Sixty-one teachers	39,943 46		
Substitutes	433 30		
Engineer, firemen and janitresses	4,642 00		
		47,018 76	
Amounts carried forward		$1,073,822 39	$1,503,206 07

Amounts brought forward		$1,073,822 39	$1,503,206 07
Group Q:			
Principal, Henry Zoller, Jr.	$2,000 00		
Seventy teachers	42,795 89		
Substitutes	457 50		
Firemen and janitresses	5,226 00		
		50,479 39	
Group R:			
Principal, George W. Ebaugh	$2,000 00		
Eighty-two teachers	55,331 05		
Firemen and janitresses	7,206 00		
		64,537 05	
Group U:			
Principal, Robert W. Elliott	$2,000 00		
Sixty-four teachers	43,915 20		
Substitutes	67 00		
Firemen and janitresses	6,060 00		
		52,042 20	
Group V:			
Principal, W. Edward F. Taylor	$1,996 67		
Seventy-four teachers	46,133 19		
Substitutes	494 00		
Engineer, firemen and janitresses	5,230 50		
		53,854 36	
Group W:			
Principal, Mary W. Holmes	$1,993 33		
Fifty-four teachers	35,464 43		
Engineer, firemen and janitresses	5,072 00		
		42,529 76	
Group X:			
Principal, Joseph H. Lockerman	$2,400 00		
Seventy-one teachers	34,553 76		
Substitutes	9,637 45		
Engineer, firemen and janitresses	4,428 00		
		51,019 21	
Group Y:			
Principal, George B. Murphy	$1,833 33		
Seventy-two teachers	38,757 96		
Substitutes	2,320 20		
Firemen and janitresses	3,689 00		
		46,600 49	
Group Z:			
Principal, Harry T. Pratt	$1,891 63		
Sixty teachers	34,138 83		
Substitutes	2,363 55		
Firemen, janitors and janitresses	2,947 20		
		41,341 21	
Total expenditures			$1,476,226 06
Surplus of credit			$26,980 01
Balance to surplus, 1911			26,980 01

NIGHT SCHOOLS A—VI (45).

Appropriation, salaries		$21,321 00

EXPENDITURES.

One hundred and fifty-eight teachers	$18,712 00	
Forty-seven janitors, janitresses and firemen	2,045 10	
Total expenditures		20,757 10
Surplus of credit		$563 90
Balance to surplus, 1911		563 90

NIGHT SCHOOLS A—VI (45).

Appropriation, expenses		$4,500 00

EXPENDITURES.

Light	$1,600 00	
Stationery and classroom supplies	660 63	
Cooking supplies	621 02	
Repairs and renewing gas and electric fixtures	400 87	
Books	150 15	
Manual training supplies	14 45	
Incidentals	6 00	
Total expenditures		3,453 12
Surplus of credit		$1,046 88
Balance to surplus, 1911		1,046 88

DAY SCHOOLS A—VI (45).

Appropriation, expenses		$162,350 00
Refund, C. & P. Telephone Company		21 00
Total credit		$162,371 00

EXPENDITURES.

Rent	$9,129 75	
Stationery	27,142 23	
Fuel	49,832 27	
Drawing material	1,515 49	
Sewing material	3,078 66	
Manual training supplies	6,672 03	
Cooking supplies	2,297 43	
Rent of telephones	2,301 23	
Advertising	500 42	
Light	8,542 03	
Kindergarten material	317 32	
Janitor supplies	6,173 83	
Hauling	2,102 75	
Weighing coal	1,084 49	
Commencements	699 61	
Laboratory supplies	5,285 52	
Principals' bonds	189 25	
Amounts carried forward	$126,864 31	$162,371 00

Amounts brought forward	$126,864 31	$162,371 00
Postage	690 24	
Flags	214 71	
Repairs to pianos, organs, etc	55 00	
Repairs to gas and electric fixtures, etc	905 51	
Repairs to window shades and renewing	2,210 66	
Repairs to desks and furniture	2,262 80	
Repairs to heating apparatus	1,754 06	
Repairs to electric bells	1,083 18	
Rearranging classrooms	851 26	
Repairs in general	3,822 42	
New furniture	6,859 24	
Manual training equipment	2,705 03	
Miscellaneous equipment	2,380 28	
Examination of physical condition of candidates	364 50	
Cleaning windows	231 43	
Cooking equipment	278 73	
New blackboards	1,712 81	
Cleaning off snow from pavements	413 67	
Car tickets	133 50	
Investigating system of education	1,998 10	
Pianos	850 00	
Making plans, schools	33 82	
Locks and keys	158 00	
Photographing schools	175 86	
Cutting down trees	45 00	
Printing	179 90	
Blankbooks	274 29	
Subscription to State Teachers' Association	15 00	
Paper samples	200 00	
Paper for printing	240 30	
Planting flower beds	47 43	
Incidentals	2,359 96	
Total expenditures		$162,371 00

EQUIPPING NEW BUILDINGS A—VI (45).

Appropriation	$30,200 00
Amount to credit, January 1, 1911	10,284 72
Total credit	$40,484 72

EXPENDITURES.

Desks and furniture	$16,816 74	
Blackboards	1,942 23	
Pianos	1,205 50	
Stage curtains	415 00	
Ventilators	171 29	
Gymnasium apparatus	260 00	
Bulletin boards	142 75	
Drop curtains	306 50	
Demonstration curtains	338 45	
Reflectoscopes, etc	421 53	
Picture machine	330 91	
Amounts carried forward	$22,350 90	$40,434 72

Amounts brought forward	$22,350 90	$40,434 72
Motor generators	218 69	
Windlass	195 00	
Cooking utensils	189 62	
Gas and electric fitting	1,826 06	
Lumber	227 90	
Carpenter work	864 57	
Window shades	965 50	
Laboratory equipment, etc	1,480 22	
Burlap	211 80	
Janitor supplies	256 63	
Incidentals	658 34	
Total expenditures		$29,445 23
Surplus of credit		$11,039 49
Balance carried forward to 1912		11,039 49

PARENTAL SCHOOL A—VI (45).

Appropriation		$10,000 00

EXPENDITURES.

Salaries	$2,982 53	
Rent	600 00	
Light	60 81	
Fuel	136 81	
Provisions	1,260 34	
Laundering	160 95	
Kitchen utensils	131 33	
Work benches	107 80	
Classroom supplies	51 83	
Manual training supplies	68 72	
Repairs to furniture	19 10	
Drugs	15 65	
Furniture	18 00	
Sundry repairs	121 77	
Bedding	52 44	
Incidentals	42 69	
Total expenditures		5,830 77
Surplus of credit		$4,169 23
Balance to surplus, 1911		4,169 23

TEACHERS' RETIREMENT FUND A—VI (45).

Appropriation	$3,000 00
Paid Joseph C. Hand, secretary	3,000 00

HIGH SCHOOL COMMERCIAL COURSE A—VI (45).

Balance brought forward from 1910	$5,526 95
Amount appropriated by State of Maryland	10,000 00
Total receipts	$15,526 95
Amount carried forward	$15,526 95

Amount brought forward		$15,526 95

EXPENDITURES.

Classroom supplies	$1,146 37	
Typewriters	1,875 40	
Text-books	3,594 39	
Furniture	453 55	
Photograph mounts	31 00	
Janitor supplies	60 12	
Repairs to typewriters	11 25	
Typewriter ribbons	183 66	
Total expenditures		7,356 24
Surplus of credit		$8,170 71
Balance carried forward to 1912		8,170 71

FREE TEXT-BOOKS A—VI (45).

Received from the State of Maryland	$56,248 54
Amount received from exchange and sale of old books	1,029 74
Total credit	$57,278 28
Amount expended	56,601 94
Surplus of credit	$676 34
Balance carried forward to 1912	676 34

REVENUE A—VI (45).

Received from State of Maryland, Free School Fund	$465,434 26
Received for tuition fees, non-residents	18,214 89
Total receipts	$483,649 15
Refund tuition fees	60 04
Total credit	$483,589 11
Paid into City Treasury	483,589 11

INTESTATE ESTATES A—VI (45).

Amount of credit, January 1, 1911	$4,970 79
Amount received during 1911	9,326 77
Total credit	$14,297 56

EXPENDITURES.

Principals' books	$161 25	
Fuel	45 00	
Repairs to window shades	412 04	
Furniture	181 10	
Light	1,113 03	
Rent	15 00	
Manual training supplies	285 78	
Janitor supplies	77 86	
Amounts carried forward	$2,291 06	$14,297 56

Amounts brought forward	$2,291 06	$14,297 56
Printing annual report	157 05	
Rent of telephones	192 32	
Gas and electric fixtures and repairs	329 59	
Hauling	174 60	
Repairs	51 98	
Laboratory supplies	35 00	
Water rent	32 56	
Stationery, etc	888 10	
Mimeographic report of Supervisor	150 00	
Surveying School No. 68 lot	40 00	
Incidentals	24 25	
Total expenditures		4,366 51
Surplus of credit		$9,931 05
Balance carried forward to 1912		9,931 05

LOT, SCHOOL No. 4 A—VI (45).

Balance brought forward from 1910	$1,310 50
Received from Contingent Fund	203 30
Total credit	$1,513 80

EXPENDITURES.

John Calter, trustee for property	$1,511 55	
Recording deed	2 25	
Total expenditures		1,513 80

ADDITION TO SCHOOL No. 2 A—VI (45).

Appropriation	$31,205 72
Amount brought forward from 1910	25,200 83
Total credit	$56,406 55

EXPENDITURES.

Water Department	$123 84	
Rullman & Wilson, stone	28 00	
P. Flannigan & Son, sewer	291 80	
Otto G. Simonson, commission	1,797 93	
Fidelity and Deposit Company, builder	51,061 53	
Total expenditures		53,303 10
Surplus of credit		$3,103 45
Balance carried forward to 1912		3,103 45

LOT AND BUILDING, SCHOOL No. 51 A—VI (45).

Appropriation		$47,963 32
Amount brought forward from 1910		94,525 52
Total credit		$142,488 84

EXPENDITURES.

Corrune W. Sothoron, Pinkney L. Sothoron	$1,539 85	
Property recording	4 28	
Water Department	106 38	
F. W. Stansbury, carpentry	492 50	
L. A. Poleman, lumber	362 72	
P. Flannigan & Son, sewer	837 00	
Baldwin & Pennington, commission	2,531 90	
J. Henry Miller, builder	125,813 55	
Total expenditures		131,688 18
Surplus of credit		$10,800 66
Balance carried forward to 1912		10,800 66

BUILDING, SCHOOL No. 86 A—VI (45).

Appropriation		$7,237 00
Amount brought forward from 1910		3,869 97
Total credit		$11,106 97

EXPENDITURES.

T. W. Pietsch, commission	$400 77	
Survey	38 00	
L. A. Poleman, lumber	296 83	
C. W. Walther Company, plumbing	82 51	
Schwind Quarry Company, stone	145 66	
G. B. Delcher, grading	742 10	
R. S. Green, cement work	376 24	
Carpentry	2,291 17	
Plumbing	44 13	
Total expenditures		4,417 41
Surplus of credit		$6,689 56
Balance carried forward to 1912		6,689 56

LOT AND BUILDING, SCHOOL No. 70 A—VI (45).

Appropriation		$21,050 87
Amount brought forward from 1910		113,860 60
Total credit		$134,911 47
Amount carried forward		$134,911 47

Amount brought forward		$134,911 47

EXPENDITURES.

King Brothers, printing	$142 75	
Advertising	72 96	
Blue prints	87 80	
George Mann, stone	25 00	
Glidden & Friz, commission	2,500 00	
D. T. Phipps	19,827 00	
Total expenditures		22,655 51
Surplus of credit		$112,255 96
Balance carried forward to 1912		112,255 96

LOT AND BUILDING, POLYTECHNIC INSTITUTE A—VI (45).

Appropriation	$380,468 75
Amount brought forward from 1910	66,170 18
Total credit	$446,638 93

EXPENDITURES.

Maryland School for the Blind:		
Payment on lot, interest, etc.	$80,983 33	
Blue prints	195 01	
Survey	86 00	
King Brothers, specifications	379 75	
Advertising	62 83	
R. P. Dobson Company, heating	273 48	
Baldwin & Pennington, commission	8,938 08	
C. L. Stockhausen, builder	23,976 90	
Total expenditures		114,895 38
Surplus of credit		$331,743 55
Balance carried forward to 1912		331,743 55

LOT AND BUILDING, SCHOOL No. 60 A—VI (45).

Amount brought forward from 1910	$34,652 94

EXPENDITURES.

City Engineer	$522 07	
Water Department	33 18	
Archer & Allen, commission	960 20	
Fidelity Construction Company	33,137 49	
Total expenditures		34,652 94

ADDITION WESTERN HIGH SCHOOL A—VI (45).

Amount brought forward from 1910		$28,455 00
EXPENDITURES.		
Water Department	$38 38	
City Engineer	23 97	
Wyatt & Nolting, commission	326 23	
C. L. Stockhausen, builder	28,066 42	
Total expenditures		28,455 00

BUILDING, SCHOOL No. 59 A—VI (45).

Appropriation		$14,658 00
Amount brought forward from 1910		1,942 07
Total credit		$16,600 07
EXPENDITURES.		
Bartlett & Hayward Company	$104 00	
Water Department	28 91	
Total expenditures		132 91
Surplus of credit		$16,467 16
Balance carried forward to 1912		16,467 16

LOT AND BUILDING, SCHOOL No. 6 A—VI (45).

Appropriation		$86,041 27
Amount brought forward from 1910		45,646 27
Total credit		$131,687 54
EXPENDITURES.		
Examining title, etc	$285 00	
Total expenditures		285 00
Surplus of credit		$131,402 54
Balance carried forward to 1912		131,402 54

LOT AND BUILDING, SCHOOL No. 22 A—VI (45).

Appropriation		$130,000 00
Amount brought forward from 1910		65,850 00
Ground rent from Celeste McGowan		20 00
Total credit		$195,870 00
EXPENDITURES.		
Property, etc	$51,477 09	
Survey	43 00	
Total expenditures		51,520 09
Surplus of credit		$144,349 91
Balance carried forward to 1912		144,349 91

LOT AND BUILDING SCHOOL No. 27 A—VI (45).

Appropriation		$105,000 00
EXPENDITURES.		
(None.)		
Balance carried forward from 1912		105,000 00

LOT AND BUILDING SCHOOL No. 27 A—VI (45).

Amount brought forward from 1910		$30,000 00
Paid for property		$11,579 69
Surplus of credit		$18,420 31
Balance carried forward to 1912		18,420 31

ADDITION SCHOOL No. 83 A—VI (45).

Appropriation		$60,000 00
EXPENDITURES.		
Survey	$53 00	
Total expenditures		$53 00
Surplus of credit		$59 947 00
Baltnce carried forward to 1912		59,947 00

ADDITION SCHOOL No. 37 A—VI (45).

Appropriation		$16,000 00
Received from Contingent Fund		43 00
Total credits		$16,043 00
EXPENDITURES.		
Survey	$43 00	
Total expenditures		43 00
Surplus of credit		$16,000 00
Balance to surplus 1911		16,000 00

ADDITION SCHOOL NO. 99 A—VI. (45).

Appropriation		$40,000 00
EXPENDITURES.		
Survey	$53 00	
Total expenditures		53 00
Surplus of credit		$39,947 00
Balance carried forward to 1912		39,947 00

LOT AND BUILDING, SCHOOL No. 111 A—VI (45).

Appropriation		$120,000 00
EXPENDITURES.		
(None.)		
Balance carried forward to 1912		120,000 00

ADDITION, SCHOOL No. 63 A—VI (45).

Appropriation		$40,000 00
EXPENDITURES.		
Survey	$43 00	
Advertising	62 20	
Blueprints	24 59	
King Bros., printing	140 00	
Water Department	58 77	
T. C. Kennedy, commission	1,000 00	
P. J. Cushen, builder	5,735 93	
Total expenditures		7,064 49
Surplus of credit		$32,935 51
Balance carried forward to 1912		32,935 51

ADDITION, SCHOOL No. 64 A—VI (45).

Appropriation		$50,000 00
EXPENDITURES.		
Survey	$48 00	
Blueprints	43 50	
Advertising	60 46	
King Bros., printing	119 75	
O. G. Simonson, commission	1,495 88	
C. L. Stockhausen, builder	26,779 47	
Total expenditures		28,547 06
Surplus of credit		$21,452 94
Balance carried forward to 1912		21,452 94

LOT AND BUILDING, SCHOOL No. 61 A—VI (45).

Appropriation		$75,000 00
EXPENDITURES.		
(None.)		
Balance carried forward to 1912		75,000 00

ADDITION, SCHOOL No. 67 A—VI (45).

Appropriation		$50,000 00
EXPENDITURES.		
Survey	$50 00	
Total expenditures		50 00
Surplus of credit		$49,950 00
Balance carried forward to 1912		49,950 00

ADDITION, SCHOOL No. 34 A—VI (45).

Appropriation		$25,000 00
EXPENDITURES.		
(None.)		
Balance carried forward to 1912		25,000 00

LOT AND BUILDING, SCHOOL No. 76 A—VI (45).

Amount brought forward from 1910		$12,184,06
EXPENDITURES.		
F. A. Knowles Co., roofing	$320 95	
Water Department	30 87	
A. C. Hummell, roofing	307 44	
Dufur, Baggott Co., wire goods	94 25	
F. E. Kern, carpentry	400 74	
P. J. Cushen, builder	9,447 69	
Total expenditures		10,601 94
Surplus of credit		$1,582 12
Balance to surplus, 1911		1,582 12

LIBRARIES A—VI (46).
ENOCH PRATT FREE LIBRARY FUND.
EQUIPMENT, BOOKS.

Appropriation		$25,000 00
EXPENDITURES.		
Enoch Pratt Free Library		25,000 00

ENOCH PRATT FREE LIBRARY FUND.

Appropriation		$4,258 00
EXPENDITURES.		
Paid Commissioners of Finance		4,258 00

PARKS A—VI (47).

Appropriation, salaries—office		$5,000 00
EXPENDITURES.		
Secretary-treasurer, J. V. Kelly	$1,800 00	
Stenographer and clerk, Clerk Kerr	999 96	
Clerk, Helen M. Spangler	715 00	
Clerk, Margaret M. Hanson	624 00	
Clerk, Cora L. Cherry	312 00	
Clerk, Bertha P. Pfeiffer	294 00	
Boy, Royal Rosenberger	108 50	
Total expenditures		$4,853 46
Surplus of credit		$146 54
Balance to surplus, Park Board, 1912		146 54

EXPENSES—OFFICE A—VI (47).

Appropriation, expenses		$2,000 00
EXPENDITURES.		
Stamps and postals	$130 00	
Stationery and printing	609 60	
Advertising	436 00	
Subscriptions to papers	13 91	
Directories (one)	7 00	
Typewriter supplies and repairs (new machines)	133 30	
Furniture	325 87	
Sundries (washing towels, etc.)	169 20	
Amounts carried forward	$1,824 88	$2,000 00

Amounts brought forward	$1,824 88	$2,000 00
Bond premiums	45 00	
Car tickets	15 00	
Telephones	112 24	
Total expenditures		1,997 12
Surplus of credit		$2 88
Balance to surplus, Park Board, 1912		2 88

PARKS AND SQUARES A—VI (47).

Appropriation, salaries		$217,738 50
EXPENDITURES.		
Administration, parks	$4,565 25	
Superintending parks	7,443 93	
Conservatory, greenhouse and nursery	8,617 20	
Outdoor gardening and forestry	19,017 71	
Grading and planting, special	5,514 45	
Lawns and fields	40,810 29	
Roads, drives and gutters	14,017 95	
Resurfacing roads, special	859 69	
Paths, walks, steps and benches	16,896 22	
Athletic fields and playgrounds	4,649 79	
Buildings, pavilions and toilets	10 529 58	
Policing and gatekeeping	25,757 99	
Live stock, stable work	3,564 00	
Zoological collection	2,574 82	
Fountains, springs and pumps	1,061 96	
Lakes and ponds	236 00	
Quarry	3,975 47	
Repair shop and shoeing	2,336 50	
General work	14,787 06	
Monuments	895 91	
Automobiles	1,238 55	
Engineering and inspection	1,195 22	
Electric lighting	1,016 21	
Park concerts	9,694 70	
Wall—Franklin road bridge (mechanics)	547 37	
Total expenditures		201,803 82
Surplus of credit		$15,934 68
Balance to surplus, Park Board, 1912		15,934 68

NOTE—The following salaries are included in "Administration Parks":

General Superintendent, William S. Manning	$3,600 00
Property Agent, Carl K. Mengel	965 25

The following salaries are included in "Superintending Parks":

Superintendent of Druid Hill district, J. Fred. Wessler	$1,560 00
Superintendent of Patterson district, Charles R. Jones	1,560 00
Superintendent of Clifton district, James W. Boone	1,560 00
Superintendent of Washington Monument and squares	1,560 00
Keeper of Gwynn's Falls reservoir, Lloyd Norris	1,198 93

PARKS AND SQUARES A—VI (47).

Appropriation, expenses		$268,484 47
EXPENDITURES.		
Administration, parks	$1,055 33	
Superintending, parks	1,186 20	
Conservatories and greenhouses	6,553 76	
Outdoor gardening and forestry	7,090 15	
Lawns and fields	21,817 54	
Roads, drives and gutters	11,928 96	
Swann avenue and Riverside drives, special	14,929 48	
Paths, walks, steps and benches	7,497 52	
Bricks for paths, special	5,792 55	
Athletic fields and playgrounds, general	4,565 67	
Buildings, pavilions and toilets	6,481 71	
Policing and gatekeeping	2,811 46	
Live stock, stable, etc	5,515 93	
New stock, horses and mules	1,200 00	
Zoological collection	2,638 26	
Fountains, springs, pumps, lakes and ponds	1,468 54	
Lakes and ponds	175 69	
Quarry	563 85	
Repair shop and shoeing	1,570 24	
Supplies, flags, etc	3,532 30	
Renewal flag poles	1,330 00	
Monuments	376 18	
Car tickets	160 00	
Conduits and electrical equipment	3,696 11	
Electrical lighting service	16,499 39	
Gas, oil and naphtha lighting	6,365 75	
Automobile	5,394 04	
Telephones	543 20	
Sinking Fund, old loans	25,734 87	
Interest, Clifton Loan	35,000 00	
Interest, Patterson Loan	8,000 00	
Sinking Fund, 1955 Loan	8,800 00	
Interest, 1955 Loan	40,000 00	
Ground rents	6,820 12	
Balance on Jackson property (Contingency Fund)	353 46	
Title examination Easterwood (Contingency Fund)	20 00	
Federal Hill slope (1909 cont. settlement)	1,015 95	
Total expenditures		268,484 21
Surplus of credit		$0 26
Balance to surplus, Park Board, 1912		26

NEW IMPROVEMENTS A—VI (47).

Appropriation			$110,167 07
EXPENDITURES.			
Wyman—Druid Hill road:			
Filling and grading	$4,232 02		
Road building (D. M. Andrew Co.)	15,532 61		
Special inspection	874 64		
Supplies—stone, asphalt, etc	617 25		
		$21,256 52	
Amounts carried forward		$21,256 52	$110,167 07

Amounts brought forward		$21,256 52	$110,167 07
Huntington avenue viaduct alteration:			
Consulting engineers (special)	$886 40		
Contract, Baltimore Bridge Co	5,851 76		
		$6,738 16	
Bridge—Wyman—Druid Hill:			
Construction (C. B. Clark & Co)	$46,176 80		
Salary of park inspector	1,080 00		
Consulting engineer (special)	200 00		
Incidental expenses	125 89		
		$47,582 69	
Concrete wall and fencing, Wyman Park		3,497 09	
Grading Huntingdon avenue, slopes, Wyman Park		3,906 44	
Electrical conduits and post lights		12,017 09	
Architects and consulting engineers:			
General work		2,467 06	
Park Engineering Corps:			
Salaries (improvements only)	$7,189 51		
Expenses	794 80		
		7,984 31	
Drainage, Carroll Park		265 48	
Drainage, Venable Park		444 65	
Drainage, Ashburton Park		318 16	
Druid Hill pipe shelter		118 25	
Druid Hill deer enclosure		375 26	
Planting (general)		2,930 45	
Miscellaneous improvements		252 83	
Total expenditures			110,154 44
Surplus of credit			$12 63
Balance to surplus, Park Board, 1912			12 63

RECEIPTS IN DETAIL A—VI (47).

Balance, January 1, 1911	$65,192 54
Railway tax, 1911	514,697 56
Rentals:	
Mansion, Druid Hill	732 00
Cottages, Clifton	27 59
Cottages, Herring Run	240 50
Lakes, Druid Hill	1,075 00
Lakes, Patterson	415 00
Cottages, Woodyear	10 00
Dwelling, Wyman	399 96
Towels at toilets	71 01
Sales:	
Old automobile	325 00
Wood	209 00
Sheep	245 00
Wool	55 83
Old materials	314 78
Cement bags	43 30
Hay	252 00
Old buildings	85 00
Horses and mules	670 00
Sand and gravel	44 70
Amount carried forward	$585,105 77

Amount brought forward		$585,105 77
Old camel		100 00
Empty barrels		47 50
Contract plans		5 00
Elk head and hide		5 00
Franchise to cross Green Spring avenue		10 00
Electrical service		85 66
Fines		27 50
Monument toll, Washington Monument		605 05
Remittances, orders and rolls		482 15
Insurance		2,254 90
Total receipts		$588,728 53
Credited to Park Board revenue		588,728 53

EXTENSION OF PARK SYSTEM A—V. (47).

Northwest Section:

(Funds taken from the proceeds of the $1,000,000 Loan authorized by Chapter 338 of the Acts of the General Assembly of Maryland of 1904, and Ordinance No. 228, approved March 20, 1905).

Appropriation		$250,000 00
Expenditures, 1906	$14,371 45	
Expenditures, 1907	221,109 03	
Expenditures, 1908	1,177 82	
Expenditures, 1909	10,228 73	
Expenditures, 1910	352 80	
		247,239 83
Balance, December 31, 1910		$2,760 17
Less discount on sale of stock		2,760 17

Southwest Section:

Appropriation		$250,000 00
Expenditures, 1906	$121,138 15	
Expenditures, 1907	11,792 47	
Expenditures, 1908	84,227 21	
Expenditures, 1909	2,582 71	
Expenditures, 1910	83 33	
Total expenditures		219,823 87
Balance, December 31, 1910		$30,176 13
Less discount on sale of stock		2,760 18
Balance to 1911 account		$27,415 95

Northeast Section:

Appropriation		$250,000 00
Expenditures, 1906	$741 70	
Expenditures, 1907	67,359 79	
Expenditures, 1908	142,924 10	
Amounts carried forward	$211,025 59	$250,000 00

Amounts brought forward	$211,025 59	$250,000 00
Expenditures, 1909	1,618 75	
Expenditures, 1910	1,236 03	
Total expenditures		213,880 37
Balance, December 31, 1910		$36,119 63
Less discount on sale of stock		2,760 18
Balance to 1911 account		$33,359 45

EXPENDITURES.

Wm. Penn Lewis, title examination	$60 00	
Ellen G. Porter, land	197 05	
John G. and Louis Maier, land	8,000 00	
J. J. Valentini, land	3,098 50	
William P. Cole, recording	2 75	
Title Guarantee and Trust Co., title examined	30 50	
Harris & Thompson, ground rent	87 00	
Total expenditures		11,475 80
Balance, December 31, 1911		$21,883 65

Southeast Section:

Appropriation		$250,000 00
Expenditures, 1906	$1,634 84	
Expenditures, 1907	135,684 63	
Expenditures, 1908	36,711 17	
Expenditures, 1909	150 00	
Total expenditures		174,180 64
Balance, December 31, 1910		$75,819 36
Less discount on sale of stock		2,760 19
Balance to 1911 account		$73,059 17

No expenditures 1911.

SUMMARY STATEMENT A—VI (47).

Showing payments made on account of Park Extension out of $1,000,000 Loan in each section of the city.
December 31, 1911.

Account.	Northwest.	Southwest.	Northeast.	Southeast.	Total.
Purchase price of land	$235,356 06	$212,949 19	$218,341 11	$171,308 16	$837,954 52
Buildings on land	1,250 00	.....	.....	.....	1,250 00
Tax adjustments	477 26	586 60	18 16	.....	1,082 02
Acknowledgments	24 30	17 10	2 20	4 30	47 90
Recording deeds	220 00	89 65	87 95	34 25	431 85
Appraising property	1,475 00	160 00	425 00	950 00	3,000 00
Title examination and abstracts	3,130 40	2,666 65	1,746 30	1,139 95	8,683 30
Surveying	2,878 36	1,418 79	644 45	206 49	5,148 09
Olmsted Bros., advice and plans	910 27	750 48	876 07	62 50	2,599 32
Clerical and other help	1,229 01	1,098 83	1,625 01	474 99	4,427 84
Auctioneers' and attorneys' fees	.....	50 00	100 00	.....	150 00
Advertising	208 38	.....	250 42	.....	458 80
Plats, maps, etc	42 20	26 58	1,102 50	.....	1,171 28
Car tickets	10 00	20 00	50 00	.....	80 00
Court costs	28 59	.....	.....	.....	28 59
Ground rent	.....	.....	87 00	.....	87 00
Total	$247,239 83	$219,823 87	$225,356 17	$174,180 64	$866,600 51
Amount of Loan	$250,000 00	$250,000 00	$250,000 00	$250,000 00	$1,000,000 00
Less discount on sale of stock	2,760 17	2,760 18	2,760 18	2,760 19	11,040 72
Appropriation	$247,239 83	$247,239 82	$247,239 82	$247,239 81	$988,959 28
Expenditures (see above)	247,239 83	219,823 87	225,356 17	174,180 64	866,600 51
Cash balance	.....	$27,415 95	$21,883 65	$73,059 17	$122,358 77

PURCHASE EASTER PROPERTY A—VI (47).

Appropriation		$23,500 00
EXPENDITURES.		
Sallie S. Houston	$16,458 63	
Robert and Katherine Barker Garrett	7,041 37	
Total expenditures		23,500 00

PARK EXTENSION—GENERAL A—VI (47).

Funds taken from balance on $1,000,000 devoted to park acquirements out of 1945, $4,000,000 Loan).

Appropriation		$1,630 80
Expenditures, 1910		200 76
Balance, December 31, 1910		$1,430 04
EXPENDITURES.		
Robert Jackson improvements on land	$1,430 04	
Total expenditures		1,430 04

FREE PUBLIC BATH COMMISSION A—VI (48).

Appropriation, salaries			$38,024 00
EXPENDITURES.			
Superintendent and secretary, T. M. Beadenkoff	$1,500 00		
Bookkeeper and paymaster, Robert F. G. Kelley	899 60		
Messenger, Robert Wyatt	208 00		
		$2,607 60	
Walters' Baths, No. 1.			
Keeper, F. E. Ellis	$669 61		
Keeper, Charles Zeller	252 00		
First assistant, Victor Heim	676 00		
Second assistant, George W. Legg	663 00		
Third assistant, George W. Batchelor	573 29		
Fourth assistant, Charles Michaels	540 36		
Fifth assistant, John Bewig	16 13		
Engineer, Joseph DeFontes	832 35		
Woman attendant, Mary Washington	440 47		
Woman attendant, Margaret Dickey	342 98		
Woman attendant, Christina McDonald	327 15		
Woman attendant, Mary Roth	64 50		
Woman attendant, Fannie Gross	54 38		
Woman attendant, Mary O'Neill	40 81		
Woman attendant, Ella Arnold	30 00		
Woman attendant, Grace Smith	15 30		
Laundress, Emma Enis	443 63		
		5,981 96	
Assistant engineer, A. J. Kaufman	$162 50		
Assistant engineer, Harry Shaw	730 47		
Assistant engineer, Ira Lee	594 36		
Assistant engineer, John F. Pickel	301 99		
Assistant engineer, Daniel Hoffman	218 92		
		2,008 24	
Amounts carried forward		$10,597 80	$38,024 00

Amounts brought forward		$10,597 80	$38,024 00

Walters' Baths, No. 2.

Keeper, Edwin Casey	$788 06	
First assistant, P. M. Stiegmann	141 75	
Second assistant, W. A. Kelly	613 06	
Third assistant, Jos. H. Stallings	406 32	
Assistant, Paul Reahl	173 47	
Assistant, George Perina	43 80	
Assistant, George Wirth	34 25	
Assistant, Thos. Barnes	32 50	
Assistant, Emil Lenz	21 00	
Assistant, August Roeber	4 00	
Engineer, John C. Kaler	771 03	
Woman attendant, Mary Seelye	408 90	
Woman attendant, Ella Arnold	87 66	
Woman attendant, Fannie Gross	46 20	
Woman attendant, Mary Roth	39 75	
Woman attendant, Sarah Connors	27 55	
Woman attendant, Pauline Otto	9 59	
Laundress, Mary List	411 07	
Laundress, Emma Cook	12 88	
		4,072 84

Walters' Baths, No. 3.

Keeper, Jos. L. Myers	$704 34	
Assistant, W. L. Butler, Jr	573 68	
Assistant, Carroll Johnson	101 19	
Engineer, John A. Hamilton	702 23	
Woman attendant, Edith Callis	409 18	
Woman attendant, Laura Robey	27 72	
Laundress, Maria Blackwood	239 81	
		2,758 15

Walters' Baths, No. 4.

Keeper, P. M. Stiegmann	$624 84	
First assistant, George Wirth	419 14	
Second assistant, Charles Rayner	255 47	
Third assistant, William Kirby	190 85	
Assistant, John Bewig	92 16	
Assistant, Lewis Eye	54 25	
Assistant, Emil Lenz	14 00	
Assistant, John Kershaw	6 25	
Engineer, Andrew J. Kaufman	619 06	
Engineer, Ira Lee	35 36	
Woman attendant, Blanche Parrott	296 87	
Woman attendant, Grace Smith	132 80	
Woman attendant, Sarah Connors	21 00	
Woman attendant, Annie Evans	15 74	
Woman attendant, Mary Roth	8 40	
Laundress, Pauline Otto	300 52	
		3,086 71

Amounts carried forward	$20,515 50	$38,024 00

Amounts brought forward		$20,515 50	$38,024 00
Woman's Outdoor Baths.			
Keeper, Locust Point, Annetta Schildt..	$105 25		
Keeper, Locust Point, Ella Arnold....	49 80		
Assistant, Locust Point, Emil Lenz.....	219 37		
Assistant, Locust Point, Lewis Eye....	12 87		
Watchman, Locust Point, Gustav Ehrig	164 03		
		551 32	
Men's Outdoor Baths.			
Keeper, Winans, G. W. Butterworth....	$334 71		
First assistant, Winans, Fred. Koehler	220 20		
Second assistant, Winans, M. R. Dresbach.	170 01		
Third assistant, Winans, Lewis Jordan	170 80		
Fourth assistant, Winans, John Snyder	154 20		
Fifth assistant, Winans, Leo Ebert....	58 80		
Assistant, Winans, John Vetter.....	33 60		
Assistant, Winans, Philip Fitzgerald..	75 20		
Keeper, Gwynns, John Kuester.....	244 25		
Helper, Gwynns, Wilbert Everts.....	42 00		
Helper, Gwynns, Kneas Harrington....	10 50		
Keeper, Canton, Wm. J. Webb.....	225 57		
Assistant, Canton, Chas. S. Powell....	102 90		
Assistant, Canton, Edward Hoyt.....	76 80		
		1,919 54	
Patterson Park Field House.			
Keeper, Charles Zeller.....	$692 68		
Assistant, Jos. A. R. Roseman.....	679 74		
Assistant, John R. Doering.....	610 80		
Woman attendant, Mary Roth.....	335 17		
Engineer, Daniel Hoffman.....	263 38		
		2,581 77	
Wages Paid to Attendants, Life Guards, etc., at Patterson Park, From April to October Inclusive.			
April.....	$24 00		
May.....	67 00		
June.....	909 55		
July.....	877 08		
August.....	765 92		
September.....	537 50		
October.....	36 90		
		3,217 95	
Public Comfort Station.			
Attendant, John Wiegand.....	$629 02		
Attendant, Henry Liere.....	624 00		
Attendant, William Grey.....	36 00		
Attendant, Mollie Helm.....	406 80		
Attendant, Rose Schoff.....	359 40		
Attendant, Ella Justice.....	71 84		
		2,127 06	
Amounts carried forward		$30,913 14	$38,024 00

Amounts brought forward		$30,913 14	$38,024 00

Portable Shower Baths.

Attendant, August Heintz	$266 30	
Attendant, Charles Brandt	539 44	
Attendant, Herbert Brown	276 04	
Attendant, John Kershaw	161 00	
Attendant Lewis Eye	108 00	
Attendant, John Draine	10 50	
Attendant, J. G. Hubert	101 20	
Atendant, George Kane	66 60	
Attendant, Arthur Abell	26 00	
Attendant, Joseph Lawson	14 86	
Attendant, George Snyder	83 88	
Attendant, Christopher Dunn	5 50	
Attendant, Katherine Stubbs	107 40	
Attendant, Blanche Parrott	77 70	
Attendant, Katherine Bromwell	74 85	
Atendant, Grace Smith	24 15	
Attendant, Mary Yeager	13 05	
Attendant, Sarah Connors	10 50	
Attendant, Eliza Robinson	7 20	
Attendant, Mary Gent	48 15	
		2,022 32

Hampden-Woodberry Neighborhood House.

Attendant, August Heintz	$348 00	
Attendant, John Bewig	18 49	
Attendant, Ella Arnold	114 02	
Attendant, Grace Smith	59 36	
Attendant, Mary Yeager	38 15	
Attendant Fannie Gross	7 42	
		585 44

Swimming Instruction.

Instructor, Aug. S. Lowsley	$199 95	
Instructor, Ethel Watters	100 13	
		300 08

Outdoor Repair Work.

Foreman, Geo. W. Buterworth	$559 16	
Assistant, John Kuester	408 00	
Assistant, Arthur Abell	339 00	
Assistant, Joseph Lawson	5 75	
Assistant, Thomas McDonough	36 00	
		1,347 91
Total expenditures		35,168 89
Surplus of credit		$2,855 11
Balance to surplus, 1911		2,855 11

Appropriation, expenses		$26,086 00

EXPENDITURES.

Office and Administration.

Advertising, printing, etc	$311 12	
Car tickets	275 00	
Sundries, postage, etc	134 12	
		720 24

Walters' Baths, No. 1.

Advertising, printing, etc	$38 85	
Betterments	195 05	
Fuel	1,495 02	
Hardware	142 19	
Household wares	213 02	
Insurance	65 00	
Ice	78 92	
Lighting	363 35	
Paints and oils	358 87	
Repairs	349 77	
Soap	1,165 60	
Suits and uniforms	46 03	
Sundries, putting in coal, etc	98 53	
Towels	89 24	
		4,699 44

Walters' Baths, No. 2.

Advertising, printing, etc	$22 61	
Fuel	681 45	
Hardware	50 83	
Household wares	80 74	
Ice	54 89	
Insurance	50 00	
Lighting	209 38	
Paints and oils	347 24	
Repairs	38 31	
Rubber goods	24 83	
Soap	524 65	
Suits, uniforms etc	31 75	
Sundries, hauling, etc	37 02	
Starch, blueing, etc	38 40	
Towels	92 80	
		2,284 90

Walters' Baths, No. 3.

Advertising, printing, etc	$22 53	
Betterments	48 82	
Fuel	488 30	
Hardware	48 15	
Household wares	53 03	
Insurance	50 00	
Ice	25 50	
Lighting	221 57	
Paints and oils	45 37	
Amounts carried forward	$7,004 58	$26,086 00

Amounts brought forward		$7,004 58	$26,086 00
Repairs	112 28		
Suits, uniforms, etc	18 50		
Soap	258 79		
Sundries	7 83		
Starch, blueing, etc	46 90		
Towels	128 04		
		1,575 61	

Walters' Baths, No. 4.

Advertising, printing, etc	$19 00		
Betterments	282 71		
Fuel	286 08		
Hardware	125 56		
Household wares	381 43		
Insurance	45 00		
Ice	51 45		
Lighting	99 03		
Paints and oils	85 43		
Purchase of property for widening of Marshall street	2,756 39		
Repairs	23 11		
Rubber goods	15 73		
Soap	276 98		
Suits, uniforms, etc	46 50		
Sundries, hauling, etc	63 14		
Towels	244 44		
		4,801 98	

Outdoor Baths.

Bathing suits	$278 28		
Betterments	121 75		
Fuel	10 60		
Hardware	298 28		
Lumber	694 25		
Paints and oils	192 01		
Repairs	56 99		
Rent	305 00		
Sundries, extra help, etc	263 45		
Towels	91 18		
		2,311 79	

Wages Posted to Expense Account.

Outdoor Baths.

Leo Ebert	$84 00		
Fred. Koehler	84 00		
Joseph Mestel	96 25		
Herbert Brown	31 25		
John Snyder	24 00		
Lewis Jordan	72 00		
William J. Webb	24 00		
Edward Hoyt	12 00		
Pat. Casey	16 00		
Chris. Dunn	4 50		
John Draine	5 00		
Emil Lenz	10 00		
		463 00	
Amounts carried forward		$16,856 96	$26,086 00

Amounts brought forward		$16,856 96	$26,086 00

Patterson Park Baths.

Advertising, printing, etc	$12 00	
Bathing suits, uniforms, etc	373 29	
Betterments	238 60	
Fuel	267 84	
Hardware	221 65	
Household wares	113 68	
Ice	51 75	
Lumber	288 58	
Lighting	911 29	
Paints and oils	131 51	
Repairs	533 35	
Soap	119 51	
Sundries, extra labor, etc	257 80	
Towels	329 80	
John Bewig	$90 25	
Charles Grupp	78 00	
Joseph Lawson	68 00	
Paul Reahl	38 00	
Frank Connors	41 00	
Matthew Connors	43 00	
		3,850 65

Patterson Park.

A. H. Dennis	84 00	
		442 25

Public Comfort Station.

Betterments	$145 09	
Fuel	91 50	
Hardware	24 31	
Household wares	225 23	
Ice	367 38	
Lightning	213 16	
Paints and oils	70 06	
Repairs	183 76	
Soap	133 50	
Sundries	24 22	
		1,478 21

Portable Shower Baths.

Betterments	$39 73	
Fuel	216 57	
Hardware	229 76	
Lumber	211 11	
Paints and oils	68 97	
Repairs	57 00	
Soap	113 02	
Sundries, hauling, etc	190 40	
Towels	44 62	
		1,171 18
Amounts carried forward	$23,799 25	$26,086 00

Amounts brought forward	$23,799 25	$26086 00

Hampden-Woodberry Neighborhood House.

Betterments	$1,033 59	
Fuel	159 55	
Hardware	100 69	
Household wares	114 47	
Soap	59 73	
Sundries, hauling, etc	113 73	
Towels	194 00	
	1,775 76	
Total expenditures		$25,575 01
Surplus of credit		$510 99
Balance to surplus, 1911		510 99

REVENUE A—VI. (48).

Receipts for the year ending December 31, 1911.

January	$962 45
February	843 61
March	945 56
April	1,204 21
May	1,891 74
June	2,118 95
July	2,704 76
August	1,830 73
September	1,430 45
October	1,077 57
November	906 04
December	1,096 49
Total receipts	$17,012 56
Paid into City Treasury	17,012 56

These receipts are from the following fees:
Indoor Baths—Bathers—Towel and soap, 3 cents.
Indoor Baths—Use of Laundry, per hour, 3 cents.
Outdoor Baths—Fees, including towel and soap, 1, 2, 3, and 5 cents.

BATHS IN NEIGHBORHOOD HOUSE, HAMPDEN A—VI (48).

Appropriation	$10,000 00
Brought forward from 1910	3,000 00
Total credit	$13,000 00

EXPENDITURES.

Paid Hampden Neighborhood Association	$13,000 00

BOILER, No. 1 BATH HOUSE A—VI (48).

Appropriation	$1,800 00
Carried forward to 1912	1,800 00

BATH HOUSE AND COMFORT STATION NORTHEAST BALTIMORE A—VI (48).

Balance brought forward from 1910		$24,266 24
EXPENDITURES.		
January 13, Archer & Allen	$774 00	
April 7, R. B. Stidham	9 24	
May 17, Alfred D. Barnard	50 00	
Total expenditures		833 24
Balance carried forward to 1912		$23,433 00

MARYLAND INSTITUTE A—VI (49).

Appropriation	$12,000 00
EXPENDITURES.	
Paid Maryland Institute	12,000 00

CHILDREN'S PLAYGROUND ASSOCIATION A—VI (49).

Appropriation	$14,000 00
EXPENDITURES.	
Children's Playground Association	14,000 00

VETERAN VOLUNTEER FIREMEN'S ASSOCIATION A—VI (49).

Appropriation	$1,000 00
EXPENDITURES.	
Veteran Volunteer Firemen's Association	1,000 00

BAR LIBRARY ASSOCIATION A—VI (49).

Appropriation	$2,500 00
EXPENDITURES.	
Bar Library Association	2,500 00

PUBLIC ATHLETIC LEAGUE, CROSS STREET HALL A—VI (49).

Appropriation	$500 00
EXPENDITURES.	
Public Athlectic League	497 81
Surplus of credit	$2 19
Balance to surplus, 1911	2 19

PUBLIC ATHLETIC LEAGUE, BROADWAY HALL A—VI (49).

Appropriation	$1,000 00
EXPENDITURES.	
(None.)	
Balance carried forward to 1912	1,000 00

MUNICIPAL GAMES, PATTERSON PARK A—VI (49).

Appropriation	$500 00
EXPENDITURES.	
Municipal Games Association	496 30
Surplus of credit	$3 70
Balance to surplus, 1911	3 70

PUBLIC ATHLETIC LEAGUE A—VI (49).

Appropriation	$3,000 00
EXPENDITURES.	
Public Athletic League	3,000 00

JOHN MIFFLIN HOOD MONUMENT A—VI (49).

Appropriation from B. D. Fund (Western Maryland Railroad,	$10,000 00
Expended	10,000 00

7. PUBLIC DEBT

STATE TAX ON CITY LOANS A—VI. (50).

Appropriation	$63,000 00
Refund	790 63
Total credits	$63,790 63
EXPENDITURES.	
Paid State tax on City Loan, 1911	63,350 55
Surplus of credit	$440 08
Balance to surplus, 1911	440 08

COMMISSIONERS OF FINANCE—SCHEDULE A—VI. (51).

DEBIT.

1911.	January 1. To cash balance		$23,434 97
	Cash, Park Board, 5 per cent. on 1911 Railway Receipts		25,734 87
	Cash, Water Board, 1½ per cent. 1910 Receipts for Water 1943 Loan Sinking Fund		15,813 59
	Premium on sale following loans:		
	Burnt District Improvement 4 per cent. 1960 Loan in 1911	$150 00	
	Conduit 4 per cent. 1958 Loan in 1911	3,495 00	
	School House 4 per cent. 1961 Loan in 1911	5,757 00	
	Dock Improvement 4 per cent. 1961 Loan in 1911	2,200 00	
	Jones' Falls Improvement 4 per cent. 1961 Loan in 1911	1,100 00	
	Paving 4 per cent. 1951 Loan in 1911	2,246 46	
	Annex Improvement 4 per cent. 1954 Loan in 1908	613 15	
			15,561 61
	Baltimore and Frederick Turnpike Company, in part liquidation of 137 shares of its Capital stock		493 20

Proceeds of sale of $13,700 worth Public Improvement 3½ per cent. 1940 Loan for the Public Improvement 1940 Loan Sinking Fund purchased from the W. M. R. R. Sinking Fund....			$12,741 00
$27,600 00	Harford Run 1920 Loan, 1 year, 4 per cent.....	$1,104 00	
5,000 00	Patterson Park 1920 Loan, 1 year, 4 per cent.....	200 00	
750,000 00	Conduit 1922 Loan, 1 year, 3½ per cent.....	26,250 00	
15,000 00	Conduit 1922 Loan, 6 months, 3½ per cent.....	262 50	
126,300 00	W. M. R. R. 1925 Loan, 1 year, 4 per cent.....	5,052 00	
1,100,200 00	W. M. R. R. 1927 Loan, 1 year, 3¼ per cent.....	35,756 50	
4,600 00	W. M. R. R. 1927 Loan, 6 months, 3¼ per cent.....	74 73	
896,100 00	Conduit 1928 Loan, 1 year, 3½ per cent.....	31,363 50	
428,200 00	Internal Improvement 1928 Loan, 1 year, 3½ per cent.....	14,987 00	
2,600 00	Internal Improvement 1928 Loan, 6 months, 3½ per cent.....	45 50	
314,994 27	Consolidated 1930 Loan, 1 year, 3½ per cent.....	11,024 80	
32,200 00	Consolidated 1930 Loan, 6 months, 3½ per cent.....	563 50	
145,000 00	Funding 1936 Loan, 1 year, 3½ per cent.....	5,075 00	
1,000 00	Funding 1936 Loan, 6 months, 3½ per cent.....	17 50	
2,353,200 00	Public Improvement 1940 Loan, 1 year, 3½ per cent.....	82,362 00	
500 00	Public Improvement 1940 Loan, 6 months, 3½ per cent.....	8 75	
1,272,900 00	Refunding 1940 Loan, 1 year, 3½ per cent.....	44,551 50	
700 00	Refunding 1940 Loan, 6 months, 3½ per cent.....	12 25	
906,800 00	Water 1943 Loan, 1 year, 3½ per cent.....	31,738 00	
203,000 00	W. M. R. R. 1952 Loan, 1 year, 3½ per cent.....	7,105 00	
50,000 00	W. M. R. R. 1950 Loan, 1 year, 3½ per cent.....	1,750 00	
2,222,400 00	Four Million 1945 Loan, 1 year, 3½ per cent.....	77,784 00	
1,816,200 00	New Sewerage 1980 Loan, 1 year, 3½ per cent.....	63,567 00	
776,400 00	New Sewerage 1980 Loan, 6 months, 3½ per cent.....	13,587 00	
1,132,000 00	Water 1916 Loan, 1 year, 5 per cent...	56,600 00	
3,000 00	Paving 1920 Loan, 1 year, 4 per cent.	120 00	
81,000 00	Funding 1916 Loan, 1 year, 5 per cent	4,050 00	
73,000 00	Water 1926 Loan, 1 year, 4 per cent..	2,920 00	

2,997,400 00	Burnt District 1954 Loan, 1 year, 3½ per cent.	$104,909 00	
300,000 00	General Fund 1955 Loan, 6 months, one-quarter of one per cent.	375 00	
			$623,216 03

Interest on Daily Bank Balances:

National Marine Bank	$1,350 24	
National Bank of Commerce	1,204 75	
		2,554 99

Interest on certificates of deposit, account purchase money of Western Maryland Railroad:

Mercantile Trust Co., 3¼ per cent., 1 year	$1,979,000 00	$64,317 50	
Baltimore Trust & Guarantee Co., 3¼ per cent., 1 year	684,000 00	22,230 00	
International Trust Co., 3¼ per cent., 1 year	500,000 00	16,250 00	
Security Storage & Trust Co, 3¼ per cent., 1 year	60,000 00	1,950 00	
Third National Bank, 3¼ per cent., 1 year	500,000 00	16,250 00	
American Bonding & Trust Co., 3¼ per cent., 1 year	200,000 00	6,500 00	
National Bank of Commerce, 3¼ per cent., 1 year	340,000 00	11,050 00	
			138,547 50

A SCHEDULE OF REAL ESTATE AND GROUND RENTS UPON THE BOOKS OF THE COMMISSIONERS OF FINANCE. A—VI. (51).

Lessees.	*Location of Lots.*	*Rental for* 1911.
Platt & Co.	Old Fish House property	$1,821 25
Robert E. Davis	Fayette and Arch streets	48 00
Boys' Home Society	Pleasant and Calvert streets	50 00
W. S. Cahill Company	Old City Yard property	497 25
Maryland Dredging and Contracting Company	Old City Yard property	1,800 00
Kate Geraghty	127 Battery avenue	157 50
Dr. John G. Huck	Charles and Weyler streets	75 70
Sophia M. Kelly	Nos. 5, 7 and 9 Weyler street	150 00
Aaron Hess	No. 11 Weyler street	33 60
John Mack	No. 13 Weyler street	19 20
William J. Blair	Nos. 15 and 17 Weyler street	105 28
Ida Young	Nos. 19 and 21 Weyler street	52 64
H. Klasmeier	No. 25 Weyler street	25 48
Conrad Kern	No. 27 Weyler street	26 32
Annie A. Derwart, trustee	No. 29 Weyler street	26 32
Mary A. Steen	Nos. 31 and 33 Weyler street	52 64
Bernard Sherry	No. 35 Weyler street	19 20
George Wimmer	No. 37 Weyler street	20 32
Abraham Strauss	Nos. 39 and 41 Weyler street	54 49
Amount carried forward		$5,035 19

Amount brought forward			$5,035 19
Margaret Goetze	No. 43 Weyler street		29 60
Caroline O. Eppley	No. 45 Weyler street		29 60
Augusta C. Pfeil	Light and Weyler streets		78 06
			$5,172 45

(Capitalized at 6 per cent., $79,698.00).

PURCHASED BY AUTHORITY OF ORD. 81, OF 1881.

Lessees.	*Location of Lots.*	*Rental for 1911.*	
Boys' Latin School	Park av. near Preston st	$549 00	
Mayor and City Coun.	Northeast Market	1,200 00	
Board of Park Com'rs.	Perkins' Spring Square	2,052 00	
Board of Park Com'rs.	Riverside Park	3,770 62	
Board of Park Com'rs.	Collington Square	960 00	
Mayor and City Coun.	Cross Street Market	974 00	
Mayor and City Coun.	City property yard, Rogers avenue and Low street	540 00	
Mayor and City Coun.	Old City Hall, Holliday street	153 00	
Mayor and City Coun.	City Hall, Holliday and Fayette streets	56 00	
Mayor and City Coun.	Lexington and Paca streets	228 00	
Mayor and City Coun.	Baltimore City College, Howard street opp. Centre	1,000 00	
Mayor and City Coun.	Colored High School, Pennsylvania avenue, near Dolphin street	1,147 50	
School lot	Chester and Chew streets	829 75	
School No. 2	Gough and Stiles streets	50 00	
School No. 4	Hanover and Lee streets	210 00	
School No. 6	Ann and Aliceanna streets	22 50	
School No. 8	South Caroline street	107 34	
School No. 11	Gilmor and Mosher streets	757 00	
School No. 13	Patterson Park avenue and McElderry street	530 00	
School No. 14	Linden avenue and Wilson street	840 00	
School No. 20	Eden and Preston streets	80 00	
School No. 21	Pennsylvania avenue and Robert street	320 00	
School No. 29	Sharp and West	570 00	
School No. 30	Hollins and Monroe	750 00	
School No. 34	Carey street, near Columbia avenue	385 00	
School No. 42	Broadway and Bank street	200 00	
School No. 47	Eastern avenue and Streeper street	1,001 00	
School No. 58	East side Woodberry lane	22 50	
School No. 60	Francis street, near Fulton avenue	450 00	
School No. 61	Linden avenue and Konig street	1,155 00	
School No. 67	Frederick road and Fairview avenue	360 00	
School No. 68	Millington and Lehman avenues	240 00	
School No. 76	Hull and Clement streets	350 00	
Amount carried forward		$21,860 21	$5,172 45

Amount brought forward		$21,860 21	$5,172 45
School No. 77	Castle street	209 25	
School No. 78	Harlem avenue and Monroe street	480 00	
School No. 91	Argyle avenue, near Lanvale street	120 00	
School No. 92	Charles and Ostend streets	372 50	
School No. 93	Baltimore street, near Aisquith	300 00	
School No. 94	Ann and Chase streets	501 75	
School No. 96	Ramsay and Pulaski streets	480 00	
School No. 107	Biddle street, near Pennsylvania avenue	1,500 00	
School No. 110	Waesche street, near Fremont avenue	480 00	
School No. 111	Bond and Chew streets	130 00	
School No. 112	Chappell street, near Carey	630 00	
Engine House No. 3	Lombard street, near High	150 00	
No. 7 Truck House	York road, Waverly	75 00	
No. 8 Truck House	Brunswick street, near Frederick road	61 50	
			27,350 21
			$32,522 66

SINKING FUNDS A—VI (51).

Receipts from Tax Levy:

General	$58,647 26
Water 1916 Loan	67,026 12
Water 1922 Loan	16,756 51
Water 1926 Loan	33,513 04
Conduit 1922 Loan	33,513 04
Conduit 1928 Loan	33,513 04
Internal Improvement 1928 Loan	100,539 18
Funding 1936 Loan	33,513 04
Public Improvement 1940 Loan	67,026 12
Refunding 1940 Loan	67,026 12
Four Million 1945 Loan	16,756 51
Burnt District Improvement 1954 Loan	67,026 12

Receipts from appropriations:

Annex Improvement 1945 Loan	17,500 00
Sewerage 1980 Loan	37,000 00
New Engine House 1957 Loan	8,800 00
New School House 1957 Loan	8,800 00
Water 1958 Loan	38,000 00
Conduit 1958 Loan	7,600 00
Dock Improvement 1961 Loan	15,200 00
Jones' Falls Improvement 1961 Loan	7,600 00
School House 1961 Loan	11,400 00
Burnt District Improvement 1960 Loan	7,600 00

Receipts from Board of Park Commissioners:

Public Park 1957 Loan	8,800 00
	$763,156 10

ENOCH PRATT FREE LIBRARY FUND A—VI (61).

Interest on Trust Funds:			
$54,300	Water 1916 Loan, 5%, 1 year	$2,715 00	
2,500	Funding 1916 Loan, 5%, 1 year	125 00	
62,300	Paving 1920 Loan, 4%, 1 year	2,492 00	
195,000	Patterson Park 1920 Loan, 4%, 1 year	7,800 00	
500,000	Water 1922 Loan, 4%, 1 year	20,000 00	
2,100	W. M. R. R. 1925 Loan, 4%, 1 year	84 00	
900	Harford Run 1920 Loan, 4%, 1 year	36 00	
1,000	Water 1926 Loan, 4%, 1 year	40 00	
113,200	Consolidated 1930 Loan, 3½%, 1 year	3,962 00	
13,200	Internal Improvement 1928 Loan 3½%, 1 year	462 00	
42,700	Public Improvement 1940 Loan, 3½%, 1 year	1,494 50	
37,800	Four Million 1945 Loan, 3½%, 1 year	1,323 00	
145,100	Refunding 1940 Loan, 3½%, 1 year	5,078 50	
4,000	W. M. R. R. 1927 Loan, 3½%, 1 year	130 00	
	Deficiency from General Treasury	4,258 00	
			$50,000 00

8. INTEREST

INTEREST ON DEPOSITS A—VI (52).

Interest at 2¼ per cent. on daily balances, paid by:		
	First National Bank	$5,021 50
	Continental Trust Company	5,010 06
	Mercantile Trust Company	5,012 27
	Maryland Trust Company	736 04
	Old Town Bank	2,352 95
	Commercial and Farmers Bank	340 29
	National Marine Bank	6,098 21
	National Bank of Commerce	6,208 40
	Maryland National Bank	2,365 85
	Drovers and Mechanics National Bank	5,025 17
	Third National Bank	178 41
	National Howard Bank	3,501 04
	National Union Bank	5,012 91
	Citizens National Bank	5,008 85
	Farmers and Merchants National Bank	4,998 67
	Merchants National Bank	5,447 11
	National Exchange Bank	5,002 70
	National Bank of Baltimore	5,102 80
	National Mechanics Bank	5,666 09
	German-American Bank	1,250 96
	German Bank	824 50
	National City Bank	1,134 80
	Calvert Bank	1,560 18
	Commonwealth Bank	953 92
	Mercantile Bank	470 30
	State Bank of Maryland	381 76
Total receipts		$84,665 74
Paid into City Treasury		84,665 74

HORWITZ BENEVOLENT FUND A—VI (52).

Interest on Trust Funds:			
$400 Water 1916 Loan, 5%, 1 year		$20 00	
2,600 Funding 1916 Loan, 5%, 1 year		130 00	
300 W. M. R. R. 1925 Loan, 4%, 1 year		12 00	
3,000 Public Improvement 1940 Loan, 3½%, 1 year.		105 00	
6,400 Refunding 1940 Loan, 3½%, 1 year		224 00	
1,600 Four Million 1945 Loan, 3½%, 1 year		56 00	
1,500 W. M. R. R. 1927 Loan, 3½%, 1 year		48 74	
1,300 Consolidated 1930 Loan, 3½%, 1 year		45 50	
1,100 Burnt District 1954 Loan, 3½%, 1 year		38 50	
100 Internal Improvement 1928 Loan, 3½%, 1 year		3 50	
700 Water 1943 Loan, 3½%, 1 year		24 50	
400 Conduit 1928 Loan, 3½%, 1 year		14 00	
600 New Sewerage 1980 Loan, 3½%, 1 year		21 00	
			$742 74

FREDERICK RAINE FUND A—VI (52).

Interest:			
$400 Public Improvement 1940 Loan, 3½%, 1 year			$14 00
Total debit			$1,704,533 26

CREDIT.

Interest on:			
W. M. R. R. 1925 Loan, 4 per cent...	$27,360 00		
W. M. R. R. 1927 Loan, 3¼ per cent.	55,380 00		
W. M. R. R. 1950 Loan, 3½ per cent.	30,625 00		
W. M. R. R. 1952 Loan, 3½ per cent.	35,000 00		
		$148,365 00	
Purchase of Stocks:			
Baltimore city stock, purchased for the various sinking funds	$1,460,721 88		
Special purchase from the W. M. R. R. Fund for the Public Improvement 1940 Loan Sinking Fund,	12,741 00		
		1,473,462 88	
Enoch Pratt Free Library, annuity		50,000 00	
Maryland Institute, account of Frederick Raine Fund		7 00	
Board of School Commissioners		7 00	
J. Barry Mahool, Mayor, first distribution of income from Horwitz Benevolent Fund		523 68	
			$1,672,365 56
Balance, December 31, 1911			32,167 70
Total credit			$1,704,533 26

UNPAID INTEREST ON STOCK DEBT A—VI (52).

Received of City Register	$6,705 23
Carried forward to 1912	6,705 23

REFUND INTEREST ON TAXES A—VI (53).

Transferred from the Contingent Fund		$15 44
Refund to Maryland, Delaware and Virginia Railway Company	$12 69	
Refund to Baltimore, Chesapeake and Atlantic Railway Company	2 75	
		15 44

INTEREST ON STOCK DEBT A—VI (54).

Appropriation	$2,356,930 50
Accrued interest on stock sales	16,214 51
Total credit	$2,373,145 01

EXPENDITURES.

Water Loans:			
$5,000,000, due 1916, 1 year, 5%....	$250,000 00		
500,000, due 1922, 1 year, 4%....	20,000 00		
1,000,000, due 1926, 1 year, 4%....	40,000 00		
1,000,000, due 1943, 1 year, 3½%..	35,000 00		
2,000,000, due 1945, 1 year, 3½%..	70,000 00		
		$415,000 00	
(Four Million Loan.)			
Western Maryland Railroad Loans:			
$684,000, due 1925, 1 year, 4%....	$27,360 00		
1,704,000, due 1927, 1 year, 3¼%..	55,380 00		
875,000, due 1950, 1 year, 3½%..	30,625 00		
1,000,000, due 1952, 1 year, 3½%..	35,000 00		
		148,365 00	
Park Loans:			
$200,000, due 1920, 1 year, 4%....	$8,000 00		
1,000,000, due 1945, 1 year, 3½%..	35,000 00		
(Four Million Loan.)			
1,000,000, due 1955, 1 year, 4%....	40,000 00		
		83,000 00	
Conduit Loans:			
$1,000,000, due 1922, 1 year, 3½%..	$35,000 00		
1,000,000, due 1928, 1 year, 3½%..	35,000 00		
600,000, due 1958, 1 year, 4%....	24,000 00		
230,000, due 1958, 6 months, 4%..	4,600 00		
		98,600 00	
General Loans:			
$1,000,000, due 1945, 1 year, 3½%..	$35,000 00		
(Four Million Loan.)			
$1,000,000 Funding 1916 Loan, 1 year, 5%	50,000 00		
280,000 McDonogh Extension 1916 Loan, 1 year 5%	14,000 00		
250,000 Harford Run 1920 Loan, 1 year, 4%	10,000 00		
Amounts carried forward	$109,000 00	$744,965 00	$2,373,145 01

Amounts brought forward.....	$109,000 00	$744,965 00	$2,373,145 01
500,000 Paving 1920 Loan, 1 year, 4%	20,000 00		
6,000,000 Burnt District Improvement 1954 Loan, 1 year, 3½%	210,000 00		
4,850,000 Internal Improvement 1928 Loan, 1 year, 3½%...	169,750 00		
5,000,000 Consolidated 1930 Loan, 1 year, 3½%.....	175,000 00		
6,000,000 Public Improvement 1940 Loan, 1 year, 3½%....	210,000 00		
4,300,000 Refunding 1940 Loan, 1 year, 3½%.....	150,500 00		
1,435,300 Funding 1936 Loan, 1 year, 3½%.....	50,865 50		
8,000,000 Sewerage 1980 Loan, 1 year, 3½%.....	280,000 00		
776,400 Sewerage 1980 Loan, 6 months, 3½%.....	13,587 00		
565,000 Wharves and Docks 1960 Loan, 1 year, 4%.....	22,600 00		
2,000,000 Annex Improvement 1954 Loan, 1 year, 4%.....	80,000 00		
1,000,000 School House 1957 Loan, 1 year, 4%.....	40,000 00		
1,000,000 Engine House 1957 Loan, 1 year, 4%.....	40,000 00		
200,000 Dock Improvement 1961 Loan, 6 months, 4%....	4,000 00		
500,000 School House, 1961 Loan, 6 months, 4%.....	10,000 00		
300,000 General Fund Bonds, 1955, 6 months, ¼ of 1%....	375 00		
Refund of interest overpaid.....	122 22		
		$1,585,799 72	
			2,330,764 72
Surplus of credit.....			$42,380 29
Balance to surplus, 1911.....			42,380 29

9. TAXATION

REAL AND PERSONAL TAXES A—VI (55).

EXPENDITURES.

Balance brought forward from 1910.....	$7,211 08
John Pleasants, clerk Circuit Court No. 2.....	61 00
Jacob W. Hook, City Collector.....	319 30
Refund, J. B. Newbold.....	294 26
Total expenditures.....	$7,885 64
Transferred from Contingent Fund.....	294 26
Carried forward to 1912 (debit balance).....	$7,591 38

BAILIFFS' FEES, CITY COLLECTOR'S OFFICE A—VI (55).

Receipts being 3 per cent. on taxes in arrears..... $49,996 95

EXPENDITURES.

A. T. Benzinger	$1,818 45	
W. L. Buck	1,818 45	
W. A. Callahan	1,818 45	
E. T. Cole	1,818 44	
David Cowan	1,798 17	
T. H. Durkin	1,818 46	
G. I. Eagleston	1,818 45	
F. D. Fenneman	1,818 45	
R. J. Fagan	1,818 44	
B. F. Gallery	1,295 96	
L. Griesman	1,818 44	
J. H. Hall	1,818 43	
J. P. Huber	1,818 44	
J. M. Huggins	1,818 43	
H. B. Humphreys	1,818 45	
W. R. Johnson	1,818 44	
P. J. Lynch	1,818 44	
W. H. McGinnity	1,818 44	
C. Murray	1,818 42	
J. M. Nolan	1,818 43	
J. J. Snyder	1,818 46	
H. Stein	1,818 46	
G. S. Stocksdale	1,818 46	
J. M. Pope	1,818 44	
G. W. Rochester	1,818 45	
W. T. Clark	1,673 80	
Joseph Barron	1,818 47	
C. H. Gehring	797 02	
P. J. Tewey	522 50	
H. A. Pumphrey	137 69	
J. F. Cowan	129 12	
Total expenditures		49,996 95

Recapitulation of Taxes Collected from January 1, 1911, to December 31, 1911.

	Basis.	Rate.	Tax.	Discount.	Net Tax.	Interest.	Total.
1899.							
Personal	$500	$1 98	$9 90		$9 90	$6 95	$16 85
1900.							
Personal	500	1 67	8 35		8 35	5 88	14 23
1901.							
Personal	3,965	1 81½	71 97		71 97	44 68	116 65
1902.							
Personal	5,340	1 95	104 12		104 12	57 37	161 49
1903.							
Real	28,633	1 86¾	534 74		534 74	249 81	784 55
Personal	4,995		93 30		93 30	44 88	138 18
Securities	10,853	30	32 56		32 56	15 98	48 54
1904.							
Real	38,633	2 06	795 84		795 84	352 65	1,148 49
Personal	507,595		10,456 47		10,456 47	3,750 01	14,206 48
Securities	9,643	30	28 93		28 93	12 44	41 37
1905.							
Real	225,793	2 11½	4,775 51		4,775 51	1,628 92	6,404 43
Personal	518,957		10,975 98		10,975 98	3,348 75	14,324 73
Securities	15,143	30	45 43		45 43	16 31	61 74
1906.							
Real	227,188	2 00	4,543 76		4,543 76	1,275 66	5,819 42
Personal	445,642		8,912 84		8,912 84	2,707 13	11,619 97
Securities	15,143	30	45 43		45 43	13 59	59 02

1907.							
Real	281,371	1 97½	5,557 09		5,557 09	274 54	5,831 63
Personal	496,431		9,804 54		9,804 54	2,317 95	12,122 49
Securities	97,091	30	291 28		291 28	63 33	354 61
1908.							
Real	896,844	2 00	17,936 88		17,936 88	2,347 41	20,284 29
Personal	1,261,161		25,223 22		25,223 22	3,664 45	28,887 67
Securities	614,317	30	1,842 94		1,842 94	353 24	2,196 18
1909.							
Real	13,668,500	1 95	266,535 76		266,535 76	30,057 26	296,593 02
Personal	2,117,265		41,286 71		41,286 71	4,071 47	45,358 18
Securities	768,139	30	2,304 68		2,304 68	295 58	2,600 26
1910.							
Real	25,699 506	1 99	511,459 51		511,459 51	25,724 20	537,183 71
Personal	4,099,035		81,570 84		81,570 84	5,108 59	86,679 43
Securities	1,790,185	30	5,370 56		5,370 56	356 99	5,727 55
1911.							
Real	273,640,280	1 98	5,418,077 65	$93,855 57	5,324,222 08	5,700 11	5,329,922 19
Personal	67,240,443		1,331,360 72	20,033 95	1,311,326 77	924 15	1,312,250 92
Securities	165,130,764	30	495,392 29	11,903 40	483,488 89	95 95	483,584 84
Savings Banks	88,050,533	18¾	165,094 74	4,104 22	160,990 52		160,990 52
Total	$647,910,388		$8,420,544 54	$129,897 14	$8,290,647 40	$94,886 23	$8,385,533 63

Opening streets and alleys	50,298 63
Paving streets and alleys	8,912 27
Mortgages	267 88
Total	$8,445,012 41

REVENUE A—VI (55).—*Continued.*

Recapitulation of Taxes Collected from January 1, 1911, to December 31, 1911.

	Basis.	Rate.	Tax.	Discount.	Net Tax.	Interest.	Total.
SUBURBAN.							
1908.							
Real, Annex	$168,758	$ 60	$1,012 55		$1,012 55	$177 77	$1,190 32
1909.							
Real, Rural	1,714,308	65	11,143 03		11,143 03	1,249 44	12,392 47
1909.							
Real, Suburban	507,471	1 30	6,597 11		6,597 11	743 47	7,340 58
1910.							
Real, Rural	3,227,652	66⅔	21,410 09		21,410 09	1,124 18	22,534 27
1910.							
Real, Suburban	1,398,220	1 30	18,176 88		18,176 88	956 30	19,133 18
1911.							
Real Rural	22,566,245	66	148,937 21	$2,189 63	146,747 58	225 56	146,973 14
1911.							
Real Suburban	9,922 900	1 30	128,997 71	1,824 52	127,173 19	241 55	127,414 74
	$39,505,554		$336,274 58	$4,014 15	$332,260 43	$4,718 27	$336,978 70

Real, 1911	$5,598,142 85	Interest, real and personal	99,604 50
Real in arrears	870,478 75	Mortgages	267 88
Personal, 1911	1,311,326 77	Opening streets and alleys	50,298 63
Personal in arrears	188,518 24	Paving streets and alleys	8,912 27
Securities	493,450 70		
Savings banks	160,990 52		$8,781,991 11

CONSCIENCE FUND A—VI (55).

Amount received from City Collector	$80 00
Amount received from Mayor's office	15 00
Amount received from Collector of Water Rents and Licenses	7 60
Total receipts	$102 60
Paid into City Treasury	102 60

LIQUOR LICENSE A—VI (56).

Amount received from State of Maryland during 1911 being three-fourths of the amount received for liquor licenses in Baltimore city	$1,125,832 85
Paid into City Treasury	1,125,832 85

GENERAL LICENSES A—VI (57).

Appropriation		$2,100 00
EXPENDITURES.		
License plates, etc	$975 00	
Advertising, stationery, etc	99 52	
Postage, etc	31 42	
Total expenditures		1,105 94
Surplus of credit		$994 06
Balance to surplus, 1911		994 06

RECEIPTS FROM LICENSES FOR THE YEAR 1911 BY THE COLLECTOR OF WATER RENTS AND LICENSES A—VI (57).

One-horse wagons	$20,672 50
Two-horse wagons	16,156 00
Three-horse wagons	1,195 50
Four-horse wagons	428 00
Six-horse wagons	126 00
Cabs	86 25
Hacks	483 75
Package carts	830 50
Coal oil	1,881 00
Theatrical permits and licenses	7,577 90
Telegraph and telephone poles	18,668 00
Cars	4,384 30
Scows	724 50
Billiard tables	237 50
Pool tables	8,837 50
Bagatelle tables	565 00
Bowling alleys	1,512 50
Pawnbrokers	1,700 33
O. E. A. licenses	358 85
Bacon	1,200 00
Sausage and pudding	45 00
Merchandise (women)	20 00
Amount carried forward	$87,690 88

Amount brought forward	$87,690 88	
Fruit	50 00	
Numbers replaced	118 00	
Gasoline stoves	167 50	
Cut flowers	86 25	
Employment agencies	518 75	
	$88,631 38	
*Peddlers' licenses	340 70	
Total receipts		$88,972 08
Paid into City Treasury		88,972 08

*Collection made by City Comptroller's Department.

DOG LICENSES AND FINES A—VI (57).

Received for licenses and renewals		$25,958 25
Received for fines		339 00
Received from S. P. C. A. for redemption of dogs, etc		823 00
Total receipts		$27,120 25

EXPENDITURES.

License tags, etc	$354 85	
Printing, etc	32 59	
Fines remitted	15 00	
	$402 44	
Maryland Society for the Prevention of Cruelty to Animals	14,500 00	
Total expenditures		14,902 44
Released by Maryland Society for Prevention of Cruelty to Animals		$12,217 81
Paid into City Treasury		12,217 81

FRANCHISE TAXES A—VI (58).

UNITED RAILWAYS AND ELECTRIC COMPANY A—VI (58.)

9 Per Cent. on Gross Receipts.

Three months previous to:	1908.	1909.	1910.	1911.
January	$112,488 58	$109,604 92	$123,573 65	$129,020 74
April	98,189 46	100,191 30	114,012 59	117,068 91
July	109,882 32	113,694 46	126,290 91	132,686 62
October	105,963 28	119,247 85	126,636 17	130,899 53
	$426,523 64	$442,738 53	$490,513 32	$509,675 80
Annex cases	.....	26,445 67	61,200 00	.....
	$426,523 64	$469,194 20	$551,713 32	$509,675 80

WASHINGTON BALTIMORE AND ANNAPOLIS ELECTRIC RAILWAY COMPANY A—VI (58.)

Three months previous to:	1908.	1909.	1910.	1911.
January	.....	$964 70	$1,156 74	$1,117 55
April	.....	896 40	957 25	948 93
July	$847 85	1,156 80	1,218 89	1,193 37
October	1,183 51	1,255 33	1,260 49	1,240 90
	$2,031 36	$4,273 23	$4,593 37	$4,500 75
From receivers (March)				216 44
				$4,717 19

MARYLAND ELECTRIC RAILWAY COMPANY A—VI (58).

Three months previous to:	1908.	1909.	1910.	1911.
January	.....	.....	60 77	74 37
April	.....	40 18	66 68	56 99
July	.....	58 04	80 85	83 80
October	.....	65 25	82 40	89 41
		$163 47	$290 70	$304 57

RECAPITULATION.

U. Ry. & Elec. Co.	$426,523 64	$469,194 20	$551,713 32	$509,675 80
W., B. & A. Elec. Ry.	2,031 36	4,273 23	4,593 37	4,717 19
Md. Elec. Ry. Co.	.....	163 47	290 70	304 57
	$428,555 00	$473,630 90	$556,607 39	$514,697 56

RECEIPTS FROM FRANCHISES AND MINOR PRIVILEGES A—VI (58).

Franchises.

Baltimore and Ohio Railroad Co., tracks, Ord. 613, Dec. 19, 1910	$50 00
Northern Central Railway Co., tracks, Ord. 61, 1902	10 00
Holmes' Electric Protective Co., Ord. 265, 1905, Franchise Tax	250 00
Baltimore Electric Light and Power Company, Franchise Tax	39 91
Thomas J. Tingles, Vacuum Machine, Ord. 445, Feb. 7 1910	10 00
Krause & Co., superstructure, Ord. 426, Dec. 20, 1909	19 20
Northern Central Railway, tracks, Ord. 30, 1900	150 00
Dietrich Bros., switch, Ord., Feb. 24, 1911	50 00
Hecht Bros., tunnel, Ord. 230, Dec. 26, 1908	50 00
Thomas O'Neill, superstructure, Ord. 646, March 17, 1911	50 00
Charles E. Blaney, superstructure, Ord. 87, 1904	25 00
Baltimore and Ohio Railroad, tracks, Ord. 631, February 28, 1911	50 00
Amount carried forward	$754 11

Amount brought forward	$754 11
Philadelphia, Baltimore and Washington Railroad, railroad siding and tracks, Ord. 651, April 3, 1911	152 00
Hoschild, Kohn & Co., covered bridgeway and tunnel, Ord. 643, March 2, 1911	50 00
Jas. Kelley, electric sign, Ord. 657, April 10, 1911	10 00
Neal Farnham (Inc.), sand blast machine, Ord. 658, April 10, 1911	10 00
Bernheimer Bros., superstructure and tunnel, Ord. 112, 1906	50 00
American Tobacco Co., bridgeway, Ord. 257,1907	21 00
Oppenheim, Obendorf & Co., superstructure, Ord. 113, 1906	20 00
Hutzler Bros, superstructure, Ord. 70, 1904	50 00
Monticello Distilling Co., use of conduit, Ord. 479, 1910	5 00
P. O'Neill, electric sign, Ord. 665, April 18, 1911	10 00
The Hemmeter Co., electric sign, Ord. 667, April 18, 1911	10 00
The Deford Co., superstructure, Ord. 254, 1905	50 00
Baltimore and Ohio Railroad Co., tracks on Race street, Ord. 237, 1905	40 00
Western Maryland Railroad Co., tracks, Centre street, Ord. 253, 1905	38 39
Joseph F. Kelley, electric sign, Ord. 633, February 28, 1911	10 00
City Cab Co., electric sign, Ord. 641, March 2, 1911	1 00
Chas. C. Willeges, electric sign, Ord. 642, March 2, 1911	10 00
Maryland Electric Railway Co., tracks, etc., Ord. 660, April 10, 1911	500 00
Baltimore Bargain House, use of conduits, Ord. 530, June 4, 1910	5 00
Baltimore and Ohio Railroad Co., tracks, Ostend street, Ord. 121, 1909	315 40
Northern Central Railroad Co., tracks on bed of Madison street, Ord. 61, 1902	10 00
Baltimore and Ohio Railroad, switch, West Pratt street, Ord. 683, May 3, 1911	50 00
Baltimore and Ohio Railroad, tracks, Pratt street, Ord. 630, February 28, 1911	50 00
Eugene I. Rosenfeld, electric sign, Ord. 670, April 18, 1911	50 00
Baltimore and Ohio Railroad Co., tracks, Ord. 471, 1910	50 00
Bartlett, Hayward & Co., tracks, Ord. 190, 1908	123 00
Bartlett, Hayward & Co., tracks, Ord. 189, 1908	63 45
Baltimore and Ohio Railroad Co., switch and scale, Ord. 81, 1904	50 00
Baltimore and Ohio Railroad Co., curves on McHenry street, Ord. 105, 1904	40 00
Baltimore and Ohio Railroad Co., tracks, Ord. 191, 1908	78 15
A. Eisenberg, superstructure, Ord. 139, 1904	28 00
Merchants and Miners' Transportation Co., Ord. 364, 1909	5 00
Amount carried forward	$2,709 50

Amount brought forward	$2,709 50	
Baltimore and Ohio Railroad Co., tracks, Ord. 680, 1911	25 00	
Victoria, Pool, Billiard, Lunch and Parlor, electric sign, Ord. 321, 1909	10 00	
The Gardiner Dairy Co., covered bridgeway, Ord. 17, 1909	73 50	
Baltimore and Ohio Railroad Co., tracks, Ord. 387, 1909	30 00	
The National Vacuum Cleaning Co., vacuum cleaner, Ord. 25, 1911	10 00	
Hochschild, Kohn & Co., superstructure or bridgeway, tunnel and coal vault, Ord. 14, 1911, supplementary to Ord. 643, 1911	5 00	
Baltimore and Ohio, tracks, Ord. 141, 1904	60 00	
Western Maryland Railroad, tracks, Ord. 26, 1905.	25 00	
Bernheimer Bros., tunnel, Ord. 201, 1906	12 50	
Total		$2,960 50

Minor Privileges.

Drains	$8,594 98
Closets	723 15
Electric signs	2,785 00
Windows, bar and show	520 60
Pipe	223 20
Barber poles	19 00
Lamps, lights, etc	213 00
Awnings	969 72
Areas	760 47
Use of streets and sidewalks	449 88
Vaults	3,788 76
Store fronts	109 40
Showcase privileges	6 00
Signs	149 65
Scales	14 00
Marquises	335 05
Tanks	121 00
Storm doors	2 00
Bay windows	1,406 05
Artesian wells	7 50
Cables	77 00
Show Cases	102 00
Pits	25 80
Basement	9 90
Temporary banner	5 00
Crane beam	1 00
Terraces	40 00
Bootblack stand	1 00
Baseball sign	1 00
Cluster	1 00
Conduits	10 00
Flag pole	1 00
Bill board and lighting	24 00
Fixtures	19 40
Coal hole	1 00
Coal chutes	24 05
Amounts carried forward	$21,541 56

Amounts brought forward	$21,541 56	
Box chute	87 00	
Box	1 00	
Coal box	5 00	
Coal machinery	25 00	
Platforms	28 60	
Doorway	1 00	
Wells, etc	25 00	
Piling lumber	30 33	
Balcony	10 00	
Storage iron	10 50	
Iron slide	5 00	
Total		21,769 99
Grand total		$24,730 49
Refunded		179 97
Net amount		$24,550 52
Balance paid into City Treasury		24,550 52

INSPECTION OF WEIGHTS AND MEASURES A—VI (59).

Appropriation	$8,600 00

EXPENDITURES.

Salaries, December 15, 1910 to December 15, 1911:		
First District, John A. Haeffner	$1,200 00	
Second District, Joseph Lynch	1,200 00	
Third District, George A. Donoghue	1,200 00	
Fourth District, John Brendel	1,200 00	
At large, Robert H. Wempe	1,200 00	
Long and Dry Measures, Charles Volk	1,200 00	
Total salaries	$7,200 00	

EXPENDITURES.

Team hire	$885 40	
Car fares, etc	195 00	
Outfit, repairs, etc	42 00	
Telephone calls, etc	71 60	
Seals, stamps, etc	62 50	
Cards, etc	16 10	
Total expenses	1,272 60	
Total expenditures		$8,472 60
Surplus of credit		$127 40
Balance to surplus 1911		127 40

Revenue.

Received for inspecting cans, etc., for outside city work	$81 60
Paid into City Treasury	81 60

Staff.

Samuel K. Thomas.....Chief Inspector.
George A. Haeffner.....First District.
Joseph Lynch.....Second District.
George A. Donoghue.....Third District.
John Brendel.....Fourth District.
Robert A. Wempe.....At Large
Charles Volk.....Inspector Long and Dry Measures.

PERMITS FOR SHEDS A—VI (59).

Receipts and Disbursements.

	Dr.	Cr.
January	$4 65	$120 00
February	48 81	154 00
March	73 09	160 00
April	8 18	90 00
May	31 36	132 00
June	107 12	95 00
July	9 41	75 00
August	55 55	.....
September	46 68	85 00
October	51 42	192 54
November	58 30	124 00
December	63 23	280 00
	$557 80	$1,507 54
Cost of advertising		557 80
Net revenue, paid into City Treasury		$949 74

INSPECTION OF WEIGHTS AND MEASURES, 1911.

During the year the following places were visited, and scales, weights and measures sealed.

Dealers.	First District.	Second District.	Third District.	Fourth District.	Long and Dry.	Total.
Groceries, meats, etc	356	500	402	390	1,967	3,615
Confectioners	215	211	198	183	.....	807
Liquor, breweries, etc	385	117	48	190	.....	740
Paints and oils	44	14	31	28	.....	117
Oysters	22	48	27	39	.....	136
Druggists	89	71	84	60	.....	304
Tea and coffee	35	5	5	18	.....	63
Commission merchants	53	.....	12	85	16	166
Hucksters	290	222	105	235	952	1,804
Groceries	547	308	437	273	.....	1,565
Dairies	52	25	21	36	.....	134
Coal and wood	25	25	35	21	185	291
Butchers and abattoirs	277	38	138	134	.....	587
Junk	25	15	4	14	.....	58
Butter, poultry and eggs	221	15	39	54	.....	329
Fish	119	7	9	19	.....	154
Fruit	180	23	28	56	139	426
Bakeries	35	28	41	16	.....	120
Factories and foundries	39	.....	.....	9	.....	48
Tobacco, etc	19	5	19	18	.....	61
Wharves	.....	.....	.....	8	.....	8
Dry goods, carpets, etc	.....	.....	.....	.....	375	375
Oyster packers	.....	.....	.....	.....	20	20
Hay, grain and feed	54	18	18	24	67	181
Hardware, etc	91	42	7	18	.....	158
Ice	7	5	5	14	.....	31
*Miscellaneous	85	11	26	39	80	241
	3,265	1,753	1,739	1,981	3,801	12,539

*Miscellaneous—Wool, rope, leather, feathers, express companies, machinery, etc.

	Condemned	Confiscated.
Scales	92	44
Weights	90	191

8 measures confiscated, owners arrested, fined.....$160

7 arrests for false weight-scales. Two fined $5 each, 3 fined $20 each, 1 dismissed with cost, 1 dismissed.

10. SUNDRIES.

CITY REGISTER IN TRUST PROPERTY SOLD FOR TAXES A—VI (61).

DEBIT.

January 3—To balance (cash)		$271 88
City stock:		
9,700 Consolidated 3½% 1930 Loan.		
6,600 Refunding 3½% 1940 Loan.		
5,300 Public Improvements 3½% 1940 Loan.		
6,800 New Sewerage Improvement 3½% 1980 Loan.		
1,500 Burnt District Improvement 3½% 1954 Loan.		
1,500 Water 5% 1916 Loan.		
January 3—Mayor and City Council 6 months' interest Consolidated 3½% 1930 Loan, $9,700	$169 75	
January 3—Mayor and City Council 6 months' Refunding 3½% 1940 Loan, $6,600	115 50	
January 3—Mayor and City Council 6 months' Public Improvement 3½% 1940 Loan, $5,300	92 75	
		378 00
January 14—To City Collector, Lot No. 3 (Tax Sale Book, page 136)		5 75
April 1—To Mayor and City Council, 6 months' interest New Sewerage Improvement 3½% 1980 Loan, $6,800		119 00
May 1—To Mayor and City Council, 6 months' interest Water 5% 1916 Loan, $1,500		37 50
June 1—To Mayor and City Council, 6 months' interest Burnt District Improvement 3½% 1954 Loan, $1,500		26 25
July 1—To Mayor and City Council, 6 months' interest Consolidated 3½% 1930 Loan, $9,700	169 75	
July 1—To Mayor and City Council, 6 months' interest Refunding 3½% 1940 Loan, $6,600	115 50	
July 1—To Mayor and City Council, 6 months' interest Public Improvement 3½% 1940 Loan, $5,300	92 75	
		378 00
October 1—To Mayor and City Council, 6 months' interest New Sewerage Improvement 3½% 1980 Loan, $7,600		133 00
November 1—To Mayor and City Council, 6 months' interest Water 5% 1916 Loan, $1,500		37 50
December 1—To Mayor and City Council, 6 months' interest Burnt District Improvement 3½% 1954 Loan, $1,500		26 25
		$1,413 13

CREDIT.

February 1—By proceeds of sale of lot No. 3,708, paid to James B. Newbold:			
Proceeds	$4 16		
Interest from November 18, 1907—3 years, 2 months, 16 days	44		
		$4 60	
Amounts carried forward		$4 60	$1,413 13

Amounts brought forward		$4 60	$1,413 13
February 3—By proceeds of sale of lot No. 3,735, paid to James B. Newbold:			
Proceeds	93 10		
Interest from November 18, 1907, 3 years, 2 months, 16 days	10 47		
		103 57	
			$108 17
June 19—To H. A. Orrick, for $800 New Sewerage Improvement 3½% 1980 Loan at 89		712 00	
Two months and 18 days' interest to date		6 07	
Commission		2 00	
			720 07
October 4—To Middendorf, Williams & Co:			
600 W. M. R. R. 3¼% 1927 Loan at 87½		$525 00	
2 months and 28 days' interest (to September 28, 1911)		4 77	
Commission		1 50	
		$531 27	
Balance due to remain open until funds are in hand		10 13	
Check No. 82, entire amount in bank			521 14
November 1—By Middendorf, William & Co.:			
Balance due on above purchase of $600 W. M. R. R. 3¼% 1927 Loan, check No. 83			10 13
By balance (deposited Calvert Bank)			53 62
			$1,413 13

PART III

STATEMENT OF LOANS

1911

STATEMENT OF WATER 1958

Accounts.	Authorized Appropriation.	Actual Appropriation.
Construction new reservoir—salaries	$15,960 00	$12,543 55
Construction new reservoir—expenses	155,039 90	155,039 90
New reservoir gate house	12,000 00	12,000 00
Purchase land and buildings in Gunpowder Valley	2,000,000 00	177,144 02
Thirty-ninth and Fortieth Streets Main	7,500 00	7,500 00
New pumps and boiler	200,000 00	200,000 00
Seventh Street Main	40,250 00	40,250 00
Harford Road Main	7,837 00	7,837 00
Totals	$2,438,586 90	$612,314 47
Total expenditures to date	$400,809 72	

STATEMENT OF FOUR MILLION

Accounts.	Authorized Appropriation.	Actual Appropriation.
New Courthouse	$1,000,000 00	$1,000,000 00
*Public parks	$1,000,000 00	$1,000,000 00
Clifton Park	.....	$722,366 30
Carroll Park	.....	104,221 75
Gwynn's Falls Park	.....	15,245 34
Park in South Baltimore	.....	25,000 00
Square in South Baltimore	.....	25,000 00
Square Riggs, Fremont and Arlington Aves.	.....	456 00
Contingent Fund, Park Board	.....	493 20
Addition to Moale's Point Park	.....	3,000 00
Addition to Wyman's Park	.....	102,586 61
Extension Park System	.....	1,630 80
Enlargement water supply	$2,000,000 00	$2,000,000 00
Received from Commissioners of Finance	$4,000,000 00	
Total expenditures to date	4,000,000 00	

LOAN TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$12,543 55	.....	$12,543 55	.....	.....
108,233 63	$40,616 24	148,849 87	.....	$6,190 03
10,775 83	1,224 17	12,000 00	.....	.....
61,166 33	115,977 69	177,144 02	.....	.....
.....	5,696 58	5,696 58	.....	1,803 42
.....	312 25	312 25	.....	199,687 75
.....	36,426 45	36,426 45	.....	3,823 55
.....	7,837 00	7,837 00	.....	.....
$192,719 34	$208,090 38	$400,809 72	.....	$211,504 75

1945 LOAN TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$1,000,000 00	.....	$1,000,000 00	.....	.....
$998,569 96	$1,430 04	$1,000,000 00	.....	.....
$722,366 30	.....	$722,366 30	.....	.....
104,221 75	.....	104,221 75	.....	.....
15,245 34	.....	15,245 34	.....	.....
25,000 00	.....	25,000 00	.....	.....
25,000 00	.....	25,000 00	.....	.....
456 00	.....	456 00	.....	.....
493 20	.....	493 20	.....	.....
3,000 00	.....	3,000 00	.....	.....
102,586 61	.....	102,586 61	.....	.....
200 76	1,430 04	1,630 80	.....	.....
$2,000,000 00	.....	$2,000,000 00	.....	.....

STATEMENT OF SEWERAGE 1980

Accounts.	Authorized Appropriation.	Actual Appropriation.
Salaries, administrative	$133,500 00	$131,898 88
Salaries, construction	823,085 65	731,410 41
Special expenses	193,960 00	160,428 65
Construction expenses	11,865,350 74	8,626,544 51
Totals	$13,015,896 39	$9,650,282 45
Received from Commissioners of Finance	$8,483,470 17	
Amount expended	8,680,243 16	
Deficit in receipts	$196,772 99	

STATEMENT OF FIRE ENGINE HOUSE

Accounts.	Authorized Appropriation.	Actual Appropriation.
Lot and building, Truck House No. 14	$25,000 00	$25,000 00
Lot and building, Truck House No. 16	35,000 00	35,000 00
Lot and building, Engine House No. 34	30,000 00	30,000 00
Lot and building, Engine House No. 35	30,000 00	30,000 00
Lot and building, Engine House No. 36	30,000 00	30,000 00
Lot and building, Engine House No. 37	30,000 00	30,000 00
Lot and building, Engine House No. 38	35,000 00	35,000 00
Lot and building, Engine House No. 39	30,000 00	30,000 00
Lot and building, Engine House No. 40	30,000 00	30,000 00
Pipe line system	689,173 80	689,173 80
Fire alarm boxes	20,000 00	20,000 00
Lot and building for new fire boat	15,288 70	15,288 70
Totals	$999,462 50	$999,462 50
Received from Commissioners of Finance	$999,462 50	
Total expenditures to date	890,626 66	
Balance on hand	*$108,835 84	

*The appropriation of $30,000 to Engine House No. 35 (location, Orleans street and Central avenue) has been transferred by the Ordinance of Estimates for the year 1912, by a re-appropriation to the credit of Pipe Line System, hence difference between credit balance and actual cash balances.

LOAN TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910	Expended in 1911	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$105,361 24	$26,537 64	$131,898 88	.....	.....
604,985 05	126,425 36	731,410 41	.....	.....
133,191 00	27,237 65	160,428 65	.....	.....
6,414,857 31	$1,241,647 91	7,656,505 22	.....	$970,039 29
$7,258,394 60	$1.421.848 56	$8,680,243 16	.....	$970,039 29

1957 LOAN TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$25,000 00	.....	$25,000 00	.....	.....
35,000 00	.....	35,000 00	.....	.....
30,000 00	.....	30,000 00	.....	.....
.....	.....	.....	.....	.....
27,791 42	$2,208 58	30,000 00	.....	.....
30,000 00	.....	30,000 00	.....	.....
35,000 00	.....	35,000 00	.....	.....
290 00	6,907 50	7,197 50	.....	$22,802 50
.....	7,706 65	7,706 65	.....	22,293 35
593,248 95	62,184 86	655,433 81	.....	33,739 99
20,000 00	.....	20,000 00	.....	.....
15,288 70	.....	15,288 70	.....	.....
$811,619 07	$79,007 59	$890,626 66	.....	$78,835 84

STATEMENT OF SCHOOL HOUSE

Accounts.	Authorized Appropriation.
Addition to School No. 2	$31,205 72
Lot and building, School No. 51	47,963 32
Building School 86	7,237 00
Building School No. 70	21,050 87
Polytechnic Institute	300,000 00
Lot and building, School No. 60	34,652 94
Building, School No. 59	14,658 00
Lot and building, School No. 6	86,041 27
Lot and building, School No. 22	130,000 00
Lot and building, School No. 27	105,000 00
Addition, School No. 83	60,000 00
Addition, School No. 37	16,000 00
Addition, School No. 99	40,000 00
Lot and building, School No. 111	120,000 00
Addition, School No. 63	40,000 00
Addition, School No. 64	50,000 00
Lot and building, School No. 61	75,000 00
Addition, School 67	50,000 00
Addition, School No. 34	25,000 00
Totals	$1,253,809 12
Received from Commissioner of Finance	$500,000 00
Expended	136,232 86
Balance	$363,767 14

*The appropriation of $16,000 to School House No. 37 has been transferred by the Ordinance of Estimates for the year 1912, by a re-appropriation to the credit of No. 99 School, hence the difference in the credit balances carried forward.

1961 LOAN TO DECEMBER 31, 1911.

Actual Appropriation.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$31,205 72	$28,102 27	$28,102 27	.....	$3,103 45
47,963 32	37,162 66	37,162 66	.....	10,800 66
7,237 00	547 44	547 44	.....	6,689 56
21,050 87	.....	.....	.....	21,050 87
300,000 00	.....	.....	.....	300,000 00
34,652 94	34,652 94	34,652 94	.....	.....
14,658 00	.....	.....	.....	14,658 00
86,041 27	.....	.....	.....	86,041 27
130,000 00	.....	.....	.....	130,000 00
105,000 00	.....	.....	.....	105,000 00
60,000 00	53 00	53 00	.....	59,947 00
16,000 00	.....	.....	.....	.....
40,000 00	53 00	53 00	.....	39,947 00
120,000 00	.....	.....	.....	120,000 00
40,000 00	7,064 49	7,064 49	.....	32,935 51
50,000 00	28,547 06	28,547 06	.....	21,452 94
75,000 00	.....	.....	.....	75,000 00
50,000 00	50 00	50 00	.....	49,950 00
25,000 00	.....	.....	.....	25,000 00
$1,253,809 12	$136,232 86	$136,232 86	.....	*$1,101,576 26

STATEMENT OF CONDUIT 1958

Accounts.	Authorized Appropriation.	Actual Appropriation.
Electrical Commission	$1,000,000 00	$1,000,000 00
Salaries	.....	.....
Expenses	.....	.....
Received from Commissioners of Finance	$829,750 00	
Total expenditures to date	776,628 34	
Balance on hand	$53,121 66	

STATEMENT OF ANNEX IMPROVEMENT

Accounts.	Authorized Appropriation.	Actual Appropriation.
Salaries, executive force	$49,420 00	$53,306 27
For acquiring streets, lanes, alleys, etc., and expenses generally	1,950,580 00	1,935,501 63
Totals	$2,000,000 00	*$1,988,807 90
Received from Commissioners of Finance	*$1,988,807 90	
Total expenditures to date	1,945,971 47	
Balance on hand	$42,836 43	

*This loan was sold at a discount of $11,192.10, making the actual amount received from the sale of $2,000,000 city stock $1,988,807.90.

LOAN TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$550,131 74	$226,496 60	$776,628 34	.....	$223,371 66
$31,812 57	$15,335 04	$47,147 61	.....	.....
518,319 17	211,161 56	729,480 73	.....	.....

1954 LOAN TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$52,356 28 1,869,971 25	$23,643 94	$1,945,971 47	.....	$42,836 43
$1,922,327 53	$23,643 94	$1,945,971 47	.....	$42,836 43

STATEMENT OF DOCK 1960

ACCOUNTS.	Authorized Appropriation.	Actual Appropriation.
Public wharves and docks—salaries	$38,136 00	$29,185 68
Public wharves and docks—construction	462,000 00	461,521 59
Pratt Street Bridge, construction and paving	370,000 00	188,618 16
Totals	$870,136 00	$679,325 43
Received from Commissioners of Finance.	$564,820 50	
Total expenditures	573,615 35	
Deficit	$8,794 85	

DOCK 1961

ACCOUNTS.	Authorized Appropriation.	Actual Appropriation.
Recreation Pier, east of Broadway	$400,000 00	$400,000 00
Property Pier, south side Harbor	300,000 00	300,000 00
Totals	$700,000 00	$700,000 00
Received from Commissioners of Finance.	$200,000 00	
Expended	150,970 87	
Balance	$49,029 13	

LOAN TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$16,214 00	$12,971 68	$29,185 68	.....	.....
244,701 73	216,819 86	461,521 59	.....	.....
3,618 16	79,289 92	82,908 08	.....	$105,710 08
$264,533 89	$309,081 46	$573,615 35		$105,710 08

LOAN.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance. Dr.	Balance Cr.
.....	$3,266 26	.....	.....	$396,733 74
.....	147,704 61	.....	.....	152,295 39
.....	$150,970 87	.....	.....	$549,029 13

STATEMENT OF PAVING LOAN

Accounts.	Authorized Appropriation.
Paving streets, avenues, alleys—salaries, etc.	$500,000 00
Received from Commissioners of Finance	$500,000 00
Expended	3,939 22
Balance on hand	$496,060 78

STATEMENT OF JONES FALLS

Accounts.	Authorized Appropriation.
Jones Falls Highway	$500,000 00
Received from Commissioners of Finance	$100,000 00
Expended	9,679 97
Balance on hand	$90,320 03

1951 TO DECEMBER 31, 1911.

Actual Appropriation.	Expended to Dec. 31, 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$500,000 00	$3,939 22	$3,939 22	.....	$496,060 78

1961 LOAN TO DECEMBER 31, 1911.

Actual Appropriation.	Expended to Dec. 31, 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$9,679 97	$9,679 97	$9,679 97	.....	.....

STATEMENT OF SCHOOL HOUSE

Accounts.	Authorized Appropriation.	Actual Appropriation.
Lot and building, School No. 2	$82,000 00	$82,000 00
Lot and building, School No. 6	50,000 00	50,000 00
Lot and buildng School No. 22	66,000 00	66,000 00
Buildng School No. 49	50,000 00	50,000 00
Lot and building, School No. 51	120,000 00	120,000 00
Purchase lot adjoining School No. 54	12,000 00	12,000 00
Purchase lot south of School No. 55	6,000 00	6,000 00
Lot and building, School No. 59	125,000 00	125,000 00
Addition to School No. 60	18,000 00	18,000 00
Purchase lot adjoining School No. 65	5,000 00	5,000 00
Purchase lot north of Baltimore street, west of Payson street	6,000 00	6,000 00
Lot and building, School No. 70	100,000 00	100,000 00
Building School No. 86	120,000 00	120,000 00
Addition Western High School	125,000 00	125,000 00
Lot and building, Polytechnic Institute	109,000 00	108,412 50
Purchase lot near Sycamore and Third aves.	6,000 00	6,000 00
Totals	$1,000,000 00	$999,412 50
Received from Commissioners of Finance	*$999,412 50	
Total expenditures to date	848,188 89	
Balance on hand	$151,223 61	

*This loan was sold at a discount of $587.50, making the amount actually received from sale of $1,000,000 of city stock $999,412.50.

1957 LOAN TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$82,000 00	.....	$82,000 00	.....	.....
16,539 61	.....	16,539 61	.....	$33,460 39
150 00	$51,500 09	51,650 09	.....	14,349 91
50,000 00	.....	50,000 00	.....	.....
39,836 11	80,163 89	120,000 00	.....	.....
12,000 00	.....	12,000 00	.....	.....
6,000 00	.....	6,000 00	.....	.....
123,057 93	132 91	123,190 84	.....	1,809 16
18,000 00	.....	18,000 00	.....	.....
5,000 00	.....	5,000 00	.....	.....
6,000 00	.....	6,000 00	.....	.....
36,139 40	.....	36,139 40	.....	63,860 60
120,000 00	.....	120,000 00	.....	.....
125,000 00	.....	125,000 00	.....	.....
42,829 82	33,839 13	76,668 95	.....	31,743 55
.....	.....	.....	.....	6,000 00
$682,552 87	$165,636 02	$848,188 89	.....	$151,223 61

STATEMENT OF PUBLIC PARKS

Accounts.	Authorized Appropriation.	Actual Appropriation.
Extension of park system	$1,000,000 00	*$988,959 27
Northwest section	$250,000 00	$247,239 83
Southeast section	250,000 00	247,239 81
Northeast section	250,000 00	247,239 81
Southwest section	250,000 00	247,239 82
Received from Commissioners of Finance	$988,959 27	
Total expenditures to date	866,600 51	
Balance on hand	$122,358 76	

*This loan was sold at a discount of $11,040.73, making the actual amount received from the sale of $1,000,000 city stock $988,959.27.

STATEMENT OF RECEIPTS BURNT DIS-

Street.	1905.	1906.	1907.
Charles	$1,832 00	$69,383 80	$6,775 48
German	.....	28,712 90	8,508 18
St. Paul Plaza	.....	24,666 19	9,127 48
Light, Baltimore and Pratt.	2,099 00	77,282 58	16,545 03
Pratt	.....	51,343 09	33,686 75
Hanover	9,697 00	21,057 76	1,784 79
St. Paul	.....	14,038 64	7,710 38
Hopkins Place	19,840 00	47,692 98	7,327 75
Calvert	4,084 84	20,235 90	8,241 77
Lombard	1,094 00	25,162 09	2,682 93
Commerce	945 00	7,215 10	715 36
West Falls Avenue	482 00	4,148 34	1,052 49
Light, Pratt to Lee	.....	3,469 30	60,635 81
Totals	$40,073 84	$394,408 67	$164,794 20

1955 LOAN TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Receipts.	Balance Cr.
$855,124 71	$12,905 84	$866,600 51	$1,430 04	$122,358 76
$247,239 83	.....	$247,239 83	.....	.....
174,180 64	.....	174,180 64	.....	.....
213,880 37	$11,475 80	225,356 17	.....	.....
219,823 87	.....	219,823 87	.....	.....

TRICT BENEFIT ASSESSMENT FUND.

1908.	1909.	1910.	1911.	Totals.
$6,126 95	$13,504 00	.....	.....	$97,622 23
2,809 00	23,995 87	.....	$85 20	64,111 15
3,595 47	25,729 23	$10 14	.....	63,128 51
4,348 24	12,213 00	55 67	839 80	113,383 32
14,958 98	51,769 36	.....	.....	151,758 18
2,850 10	17,760 86	.....	.....	53,150 51
2,326 14	17,969 98	9 00	.....	42,054 14
3,466 58	10,474 43	.....	.....	88,801 74
337 13	11,719 59	.....	.....	44,619 23
682 98	6,561 86	26 56	684 96	36,895 38
93 90	1,429 26	.....	.....	10,398 62
1,376 68	3,496 74	.....	.....	10,556 25
8,936 80	76,346 50	1,960 16	3,663 52	155,012 09
$51,908 95	$272,970 68	$2,061 53	$5,273 48	$931,491 35

STATEMENT OF BURNT DISTRICT FUND (W. M.

ACCOUNTS.		Authorized Appropriation.	Actual Appropriation.
Widening, opening and extending streets...		$1,000,000 00	$1,000,000 00
Light street.....	Ordinance No. 66..	$467,844 98	$467,844 98
Pratt street.....		31,462 44	31,462 44
Hanover street.....		163,976 12	163,976 12
St. Paul street.....		168,155 17	168,155 17
Hopkins Place.....		8,182 75	8,182 75
Calvert street.....		140,147 59	140,147 59
West Falls avenue.		20,230 95	20,230 95
St. Paul Street Plaza and widening streets.		$600,000 00	$600,000 00
St. Paul Street Plaza	Ordinance No. 67...	$520,698 08	$520,698 08
Charles street.....		79,301 92	79,301 92
Special Election, Ord. No. 71.....		$16,909 96	$16,909 96
White & Marriott, Ord. No. 83.....		$1,200 00	$1,200 00
Street Cleaning Department.....		$36,819 31	$36,819 31
Commissioners of Street Cleaning, Ord. No. 84.....		$14,992 67	$14,992 67
Cleaning and sprinkling Burnt District, Ord. No. 262.....		21,826 64	21,826 64
Dock Improvements, Ord. No. 94.....		$500,000 00	$500,000 00
Courthouse Commission, Ord. No. 98.....		$138,538 19	$138,538 19
Water Board.....		$145,698 74	$145,698 74
Revenue, Ord. No. 99.....		$42,698 74	$42,698 74
Expenses, Ord. No. 102.....		3,000 00	3,000 00
Water Engineer, expenses, Ord. No. 241..		60,000 00	60,000 00
Water Engineer, expenses, Ord. No. 42...		40,000 00	40,000 00
City Engineer's Department.....		$253,561 20	$253,561 20
Grading and paving in Burnt District, Ord. Nos. 113 and 101.....		$220,000 00	$220,000 00
Paving Fayette, Calvert and St. Paul streets, Ord. No. 183.....		29,258 19	29,258 19
Repaving Centre Market Space, Ord. 263..		15 78	15 78
Repaving streets in financial district, Ord. 270.....		4,287 23	4,287 23
City Surveyor's fees and advertising, Ord. No. 114.....		$855 47	$855 47

R. R. PURCHASE MONEY) TO DECEMBER 31, 1911.

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$1,000,000 00	.....	$1,000,000 00	.....	.....
$467,844 98	.....	$467,844 98	.....	.....
31,462 44	.....	31,462 44	.....	.....
163,976 12	.....	163,976 12	.....	.....
168,155 17	.....	168,155 17	.....	.....
8,182 75	.....	8,182 75	.....	.....
140,147 59	.....	140,147 59	.....	.....
20,230 95	.....	20,230 95	.....	.....
$600,000 00	.....	$600,000 00	.....	.....
$520,698 08	.....	$520,698 08	.....	.....
79,301 92	.....	79,301 92	.....	.....
$16,909 96	.....	$16,909 96	.....	.....
$1,200 00	.....	$1,200 00	.....	.....
$36,819 31	.....	$36,819 31	.....	.....
$14,992 67	.....	$14,992 67	.....	.....
21,826 64	.....	21,826 64	.....	.....
$500,000 00	.....	$500,000 00	.....	.....
$138,538 19	.....	$138,538 19	.....	.....
$145,698 74	.....	$145,698 74	.....	.....
$42,698 74	.....	$42,698 74	.....	.....
3,000 00	.....	3,000 00	.....	.....
60,000 00	.....	60,000 00	.....	.....
40,000 00	.....	40,000 00	.....	.....
$253,561 20	.....	$253,561 20	.....	.....
$220,000 00	.....	$220,000 00	.....	.....
29,258 19	.....	29,258 19	.....	.....
15 78	.....	15 78	.....	.....
4,287 23	.....	4,287 23	.....	.....
$855 47	.....	$855 47	.....	.....

STATEMENT OF BURNT DISTRICT FUND (W. M. R. R.

ACCOUNTS.	Authorized Appropriation.	Actual Appropriation.
Salaries, special assessors and clerks, Appeal Tax Court, Ord. No. 131	$8,000 00	$8,000 00
Deficiencies in city departments, Ord. No. 146	$154,491 62	$154,491 62
City Register	$466 60	$466 60
Fire Commissioners	67,147 07	67,147 07
City Engineer	23,051 55	23,051 55
Harbor Board	2,169 17	2,169 17
Commissioner of Street Cleaning	3,462 67	3,462 67
Police Commissioners	2,910 75	2,910 75
Topographical Survey	44 79	44 79
Mayoralty	520 00	520 00
Inspector of Buildings	53,435 18	53,435 18
Board of Estimates	83 84	83 84
Health Department	1,200 00	1,200 00
Revising Building Laws, Ord. No. 147	$5,000 00	$5,000 00
Landmarks in Burnt District, Ord. No. 152	$3,997 04	$3,997 04
Repairs Jones' Falls walls, Ord. No. 153	$5,653 04	$5,653 04
Centre Market Commission, Ords. Nos. 157 and 71	$500,000 00	$500,000 00
Burnt District Commission, Ords. Nos. 56, 211, 6, 108 and 263. Salaries / Expenses	$114,886 16	$114,886 16
Inspector of Buildings, salaries, Ords. Nos. 178 and 57	$14,300 18	$14,300 18
Electrical Subways, Ords. Nos. 190 and 74	$93,000 00	$93,000 00
Sewer in and paving Lexington street, Ord No. 143	$5,571 69	$5,571 69
Greater Baltimore Jubilee and Exposition Association, Ord. No. 175	$10,000 00	$10,000 00
Reinforcing new piers, etc., Ord. No. 2, 1907.	$75,576 47	$75,576 47
Widening German street, Ord. No. 6, 1907	$33,146 46	$33,146 46
Widening Light street, Pratt to Lee, Ord. No. 7, 1909	$4,947 30	$4,947 30

PURCHASE MONEY) TO DECEMBER 31, 1911.—*Continued.*

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$8,000 00	.....	$8,000 00	.....	.....
$154,491 62	.....	$154,491 62	.....	.....
$466 60	.....	$466 60	.....	.....
67,147 07	.....	67,147 07	.....	.....
23,051 55	.....	23,051 55	.....	.....
2,169 17	.....	2,169 17	.....	.....
3,462 67	.....	3,462 67	.....	.....
2,910 75	.....	2,910 75	.....	.....
44 79	.....	44 79	.....	.....
520 00	.....	520 00	.....	.....
53,435 18	.....	53,435 18	.....	.....
83 84	.....	83 84	.....	.....
1,200 00	.....	1,200 00	.....	.....
$5,000 00	.....	$5,000 00	.....	.....
$3,997 04	.....	$3,997 04	.....	.....
$5,653 04	.....	$5,653 04	.....	.....
$500,000 00	.....	$500,000 00	.....	.....
$114,886 16	.....	$114,886 16	.....	.....
$14,300 18	.....	$14,300 18	.....	.....
$93,000 00	.....	$93,000 00	.....	.....
$5,571 69	.....	$5,571 69	.....	.....
$10,000 00	.....	$10,000 00	.....	.....
$75,576 47	.....	$75,576 47	.....	.....
$33,146 46	.....	$33,146 46	.....	.....
$4,947 30	.....	$4,947 30	.....	.....

STATEMENT OF BURNT DISTRICT FUND (W. M. R. R.

Accounts.	Authorized Appropriation.	Actual Appropriation.
Paving West Falls avenue, Swann street, etc., Ord. No. 224, 1907	$23,000 00	$23,000 00
Jamestown Exposition Building, Ord. No. 234, 1907	$15,000 00	$15,000 00
Paving Light street, Ord. No. 237, 1907	$50,000 00	$50,000 00
Lot. South street and Exchange Place, Ord. No. 249, 1907	$900 00	$900 00
Memorial to John Mifflin Hood, Ord. No. 266, 1907	$10,000 00	$10,000 00
Abutting property owners, Ord. No. 160, 1906	$28,615 87	$28,615 87
Construction—Docks and piers	$999,956 43	$999,956 43
Salaries	$39,423 28	$39,423 28
Construction	960,533 15	960,533 15
Totals	$4,849,625 13	$4,849,625 13
Received from Commissioners of Finance	$4,849,625 13	
Total expenditures to date	4,849,625 13	

PURCHASE MONEY) TO DECEMBER 31, 1911.—*Concluded.*

Expended to Dec. 31, 1910.	Expended in 1911.	Total Expenditures to Date.	Balance Dr.	Balance Cr.
$23,000 00	.....	$23,000 00	.....	.....
$15,000 00	.....	$15,000 00	.....	.....
$50,000 00	.....	$50,000 00	.....	.....
$900 00	.....	$900 00	.....	.....
.....	$10,000 00	$10,000 00	.....	.....
.....	.....	.....	.....	.....
$28,615 87	.....	$28,615 87	.....	.....
$999,956 43	.....	$999,956 43	.....	.....
$39,423 28	.....	$39,423 28	.....	.....
960,533 15	.....	960,533 15	.....	.....
$4,839,625 13	$10,000 00	$4,849,625 13	.....	.....

PART IV

SCHEDULE B

THE

ASSETS AND LIABILITIES

AND

TAXABLE BASIS

OF THE

CITY OF BALTIMORE

AS OF DECEMBER 31, 1911

EXPLANATORY

Heretofore, in preparing the assets and liabilities of the City of Baltimore, the original costs of properties have been used as the basis. It is quite evident that in most cases the cost no longer represents the market value and it is only proper that due consideration should be given to changes in the value of lots since acquisition and in the value of buildings since erection, either by way of depreciation or appreciation, and, while a complete and thorough revaluation of city properties has not been made in recent years, in order that the present assets of the city might be truly stated, a revaluation statement was, nevertheless, prepared by Messrs. Thomas J. Lindsay and Alfred D. Bernard, Special Assessors of the Appeal Tax Court, early in January, 1911, in a hurried period of ten days, of the market values of all city properties, excepting the following classes of property, namely: Sewerage Commission, water system, electrical conduit system, fire and police electrical systems, free public baths, public libraries, bridges, public comfort stations, public franchises and easement values.

In our tables of assets this year we reproduce the figures, with the changes that have subsequently occurred, of Messrs. Lindsay and Bernard, which we have used as the basis, rather than the original costs, as heretofore, and while the present statement is not entirely satisfactory, we believe it is preferable to using cost figures as the basis, and it is to be hoped that a true statement may be compiled in the near future.

The following is taken from Messrs. Lindsay and Bernard's letter, in which they submitted their report to the Appeal Tax Court:

"In computing the values of lots owned by the city, we have considered the present highest utility, from which we have deducted the fair market value of all the ground rents on such portions as are leasehold, and where the properties are improved we have added the cost of the improvements, from which we have deducted depreciation at the rate of 1 per cent. per year for each year of the age of the building, except where buildings were erected between 1895 and 1903, where we have made average increases in construction value before deducting depreciation account.

In reaching the fair market value of the various parks and squares in the city, we have assumed that the purchases would develop the tracts to meet the utility of the land, and have put them in at a valuation running from four-fifths to one-quarter of the market value of a single lot. This is based on the theory that a single block of ground would be developed at a profit of 20 per cent., while a tract which might cover a period of twenty years in the development ought to show at least 400 per cent. gross paper profit, to cover loss of area in producing streets and alleys, development expenses and interest.

We have not considered the value of these tracts at single lot prices, but have assumed a single purchaser for a whole tract.

In reaching the value of the city's waterfront, we have assumed that the purchasers would pay taxes and have, therefore, capitalized rentals from 7 per cent. to 8 per cent.

In a scheme so large to make other than an approximate estimate in a short time would be impossible, and we have, therefore, omitted anything like an analysis of values.

We have, however, valued each property separately, and whenever we deem it necessary, we have given figures and made comment sufficient we trust to make our work intelligible.

We have also approached the subject in the spirit of the utmost conservatism, and have not been influenced by prices paid for property,

simply using these sales as guides, and have resolved all our doubts and misgivings against the city in order that its citizens may have a conservative valuation of the property it owns.

We have not valued any asset of the city, the sale of which would injure adjoining property irreparably, and, therefore, cannot include a number of properties classed as parks and squares which are of necessity parts of streets; the sewerage system, conduits, franchise rights and easements are all excluded.

In fixing acreages of tracts, we have assumed the acreages were given in the Comptroller's report. In a few instances we have made the computation ourselves.

As it would be impossible for us to make an approximate value of the water system as an entirety, we suggest that it be added as reported to the Comptroller. We have, however, in computing the area of the parks, excluded the acreage of the reservoirs."

SCHEDULE B

B—I.	Taxable Basis of Baltimore City for the Year 1912.
B—Ia.	Comparative Statement of Full Assessable Basis, Appropriations and Tax Rates.
B—II.	Consolidated Statement of Assets and Liabilities.
B—III.	Assets.
B—IV.	Liabilities.
B—V.	Comptroller's Balance Sheet.
B—Va.	Cash Balance Sheet of the City Register.
B—VI.	Cash Balance Sheet of Commissioners of Finance.
B—VII.	Funded Debt.
B—VII Con.	Increase of Funded Debt Authorized But Not Yet Issued.
B—VIIa.	Accrued Interest on Funded Debt.
B—VIIb.	Funds Held by Commissioners of Finance for Sinking Funds.
B—VIIc.	Accrued Interest on Funded Debt in the Sinking Funds.
B—VIId.	Accrued Rentals of Real Estate and Ground Rents on the Books of the Commissioners of Finance.
B—VIIe.	Enoch Pratt Free Library Fund, Held in Trust by the Commissioners of Finance.
B—VIIf.	Horwitz Benevolent Fund, Held in Trust by the Commissioners of Finance.
B—VIIg.	Frederick Raine Fund Held in Trust by the Commissioners of Finance.
B—VIII.	Uncollected Taxes.
B—IX.	Miscellaneous Accounts.
B—X.	Salaries Due December 31, 1911, Payable January 1, 1912.
B—XI.	Sundry Bills Due December 31, 1911.
B—XII.	Water Department Statement of Land, Construction and Real Estate.
B—XIII.	Electrical Commission Subways.
B—XIV.	Wharf Property Owned by the City of Baltimore.
B—XV.	Miscellaneous City Property, Public Buildings and Real Estate.
B—XVI.	Public Schools.
B—XVII.	Fire Department Property—Engine Houses.
B—XVIII.	Public Parks and Squares.
B—XIX.	Police Station Houses.
B—XX.	Municipal Markets.
B—XXI.	Ground Rents on City Property, Held by Commissioners of Finance for Redemption of Loans.
B—XXII.	New Sewerage System.
B—XXIII.	Free Public Baths and Public Comfort Stations.
B—XXIV.	Uncollected Water Rents.
B—XXV.	The Enoch Pratt Free Library.

SCHEDULE B—I.

Taxable Basis of Baltimore City for the Year 1912, *Assessable at Full Rate* ($1.89 *per* $100).

Real estate		$328,120,398 00	
Personal property (individuals, firms, and foreign corporations)	$44,739,697 00		
Less plant exemption	4,903,535 00		
		39,836,162 00	
Personal property (Maryland incorporated companies)	$46,281,923 00		
Less plant exemption	5,281,923 00		
		41,000,000 00	
Distilled spirits in bond (estimated)		900,000 00	
			$409,856,560 00
Assessable at fixed rates:			
Real estate—Suburban ($1.26 per $100)		$16,438,656 00	
Real estate—Rural (65 cents per $100)		28,092,448 00	
Securities (30 cents per $100)		179,412,676 00	
Savings bank deposits (estimated) (18¾ cents per $100)		90,000,000 00	
			313,943,780 00
Total assessable basis			$723,800,340 00

SCHEDULE B—I*a*.

Comparative Statement of Full Assessable Basis, Appropriations and Tax Rate.

Year.	Full Assessable Basis.	Appropriations.	Tax Rate Per $100.00.
1900	$311,617,353 00	$7,379,819 80	$1.67
1901	322,120,377 00	8,938,941 86	1.81½
1902	329,651,426 00	9,788,669 90	1.95
1903	440,153,153 00	10,146,555 93	1.8675
1904	491,921,328 00	10,142,725 35	2.06
1905	503,144,182 00	10,840,067 50	2.11½
1906	548,522,063 00	15,005,850 95	2.00
1907	595,791,882 00	17,648,296 25	1.97½
1908	624,482,590 00	18,765,002 18	2.00
1909	655,401,372 00	19,316,002 31	1.95
1910	682,633,316 00	17,116,635 15	1.99
1911	698,135,168 00	21,310,281 80	1.98
1912	723,800,340 00	23,580,038 95	1.89

SCHEDULE B—II.

Consolidated Statement of Assets and Liabilities.

December 31, 1911.

Assets (B—III)	$81,095,558 25
Liabilities (B—IV)	66,139,415 96
Excess of assets over liabilities	$14,956,142 29

SCHEDULE B—III.

Assets.

December 31, 1911.

Quick Assets:		
Cash—City Register (B—V*a*)	$1,832,964 59	
Cash—Commissioners of Finance (B—VI)	32,167 70	
		$1,865,132 29
Funds held by Commissioners of Finance for Sinking Funds (B—VII*b*)		22,523,959 97
Accrued interest on Funded Debt in the Sinking Funds (B—VII*c*)		219,981 06
Accrued rentals of real estate and ground rents upon books of the Commissioners of Finance (B—VII*d*)		7,329 94
Uncollected taxes (B—VIII)		2,575,392 17
Uncollected water rents (B—XXIV)		130,622 20
Miscellaneous accounts (B—IX)		79,856 91
Stocks—550 shares Baltimore & Reisterstown Turnpike Co.		2,062 50
		$27,404,337 04
Fixed Assets:		
Public Utilities—		
Water Department—Land, construction and real estate (B—XII)	$13,994,444 52	
Electrical Commission—Conduits (B—XIII)	2,303,824 04	
Public wharves and docks (B—XIV)	6,439,748 48	
New sewerage system (B—XXII)	8,680,243 16	
		31,418,260 20
Miscellaneous city property, public buildings and real estate (B—XV)	$6,369,953 21	
Public schools (B—XVI)	5,472,070 49	
Fire Department property—Engine houses (B—XVII)	1,850,429 56	
Public parks and squares (B—XVIII)	6,627,708 00	
Police station houses (B—XIX)	343,867 00	
Municipal markets (B—XX)	1,048,590 00	
Ground rents on city property held by Commissioners of Finance for redemption of Loans (B—XXI)	529,950 00	
Free public baths and public comfort stations (B—XII)	30,392 75	
		22,272,961 01
		$81,095,558 25

SCHEDULE B—IV.

Liabilities.

December 31, 1911.

Funded Debt (B—VII)	$64,595,382 95
Accrued interest on Funded Debt (B—XIIa)	765,219 43
Miscellaneous accounts (B—IX)	80 54
Salaries due December 31, 1911, payable January 1, 1912, (B—X)	141,640 26
Sundry bills due December 31, 1911 (B—XI)	637,092 78
	$66,139,415 96

SCHEDULE B—V.

Comptroller's Balance Sheet.

December 31, 1911.

	Dr.	Cr.
City Register (B—Va)	$1,832,964 59	
Tax sales	7,591 38	
Private paving and inspection	11,484 95	
Postage stamp account	151 52	
City car tickets	252 50	
Opening streets balance	60,376 56	
Dock 1960 Loan	114,504 93	
Dock 1961 Loan	549,029 13	
Sewerage 1980 Loan	1,166,812 28	
Paving 1951 Loan	500,000 00	
School 1961 Loan	1,101,576 26	
Water 1958 Loan	612,314 47	
Engine House 1957 Loan	30,000 00	
Park Board		$1,435 48
Additional building City Jail		2,536 50
Boiler No. 1, Bath House		1,800 00
Bayview power house and machinery		19,133 58
Addition to School No. 2		3,103 45
Lot and building, School No. 51		10,800 66
Building, School No. 86		6,689 56
Lot and building, School No. 70		112,255 96
Lot and building, Baltimore Polytechnic Institute		331,743 55
Building, School No. 59		16,467 16
Lot and building, School No. 6		131,402 54
Lot and building, School No. 22		144,349 91
Lot and building, School No. 27		105,000 00
Addition, School No. 83		59,947 00
Addition, School No. 99		39,947 00
Lot and building, School No. 111		120,000 00
Addition, School No. 63		32,935 51
Addition, School No. 64		21,452 94
Lot and building, School No. 61		75,000 00
Amounts carried forward	$5,987,058 57	$1,236,000 80

Amounts brought forward	$5,987,058 57	$1,236,000 80
Addition, School No. 67		49,950 00
Addition, School No. 34		25,000 00
Lot and building for stables		44,621 82
Additional room and improvement City Hall		5,323 04
Lot and building, Engine House No. 35		22,293 35
Lot and building, Engine House No. 41		22,802 50
Bulkhead Old Marine Hospital		5,802 08
Equipment, No. 2 Hose Company		5,062 52
Equipment, Engine Company No. 40		7,325 75
Pipe line system pumping station		33,739 99
Paving private alleys		7,318 32
Mosher street paving, Madison to McCulloh		3,494 62
Underpinning buildings, Howard, Eutaw and Hamburg streets		405 24
Sundry streets		26,413 31
Unpaid interest on stock debt		6,705 23
Bath house comfort station, N. E. Baltimore		23,433 00
Municipal Tuberculosis Commission		726 51
Equipment for new school		11,039 49
Free text book		676 34
Commercial course		8,170 71
Salaries, Police Commissioners		4,813 60
Expenses visitors City Jail		1,002 31
Opening streets		48,846 73
Parental school		7,887 74
Lot near Sycamore and Third avenues		6,000 00
Lot, School No. 27		18,420 31
Lot, School No. 68		2,394 35
Lot, School No. 99		5,095 13
Unclaimed damages for opening streets		454 17
Mural decorations		500 00
New improvement Bayview Hospital		3,793 51
Intestate estates		9,931 05
Railroad siding and tramway		1,500 00
Paving Canton street		2,934 79
Additional building, Sydenham Hospital		30,000 00
Widening Harford Road		24,327 83
P. A. Athletic League, Broadway Hall		1,000 00
Infectious disease hospital		3,855 00
Port street paving		80 54
Conduit 1958 Loan		53,121 66
Engine House 1957 Loan		108,835 84
Schools 1957 Loan		151,223 61
Dock 1961 Loan		49,029 13
Thirty-ninth and Fortieth street Main Water Board		1,803 42
New pump boiler, Mt. Royal Station		199,687 75
Seventh street Main Water Board		3,823 55
Construction new reservoir		6,190 03
Acquiring streets, etc., Annex		42,836 43
Amounts carried forward	$5,987,058 57	$2,335,693 10

Amounts brought forward	$5,987,058 57	$2,335,693 10
Pratt street bridge property and construction, paving		105,710 08
Recreation pier, end of Broadway		396,733 74
Property pier S. S. Harbor		152,295 39
Expense construction sewerage system		970,039 29
Extension park system		122,358 76
Jones Falls Highway		90,320 03
Paving streets, Paving Commission		496,060 78
Paving Loan 1951 Loan		496,060 78
School 1961 Loan		363,767 14
Surplus		458,019 48
Total	$5,987,058 57	$5,987,058 57

SCHEDULE B—V*a*.

Cash Balance Sheet of the City Register.

In Account with the Mayor and City Council.

1911			Dr.	Cr.
January	1,	To Balance	$1,849,378 26	
January	31,	To cash	694,730 22	
February	28,	To cash	4,735,271 01	
March	31,	To cash	996,674 53	
April	29,	To cash	1,536,585 22	
May	31,	To cash	1,570,029 61	
June	30,	To cash	1,205,912 11	
July	31,	To cash	2,355,444 03	
August	31,	To cash	815,074 26	
Sept.	30,	To cash	335,279 50	
Oct.	31,	To cash	896,268 82	
Nov.	29,	To cash	397,451 65	
Dec.	30,	To cash	1,194,124 61	
Jan.	31,	By cash		$1,514,630 64
Feb.	28,	By cash		1,563,193 85
March	31,	By cash		1,120,165 79
April	29,	By cash		1,296,958 03
May	31,	By cash		1,735,620 73
June	30,	By cash		1,702,154 49
July	31,	By cash		1,497,241 16
August	31,	By cash		994,494 61
Sept.	30,	By cash		1,187,359 18
October	31,	By cash		1,432,715 77
November	29,	By cash		1,195,383 30
December	30,	By cash		1,509,341 69
		Balance (B-V)		1,832,964 59
			$18,582,223 83	$18,582,223 83

SCHEDULE B—VI.

Cash Balance Sheet of Commissioners of Finance.

December 31, 1911.

SINKING FUNDS.

General Sinking Fund	$3,749 25
Public Park Sinking Fund No. 2	85 84
Burnt District Improvement 1954 Loan Sinking Fund	1,496 90
Redemption Five Million 1890 Loan	1,903 45
Public Improvement 1940 Loan Sinking Fund	1,414 68
Western Maryland Railroad Sinking Fund	10,838 18
Paving 1951 Loan Sinking Fund	2,246 46
Internal Improvement 1928 Loan Sinking Fund	2,144 89
Refunding 1940 Loan Sinking Fund	1,433 84
Four Million 1945 Loan Sinking Fund	458 48
Jones Falls Improvement 1961 Loan Sinking Fund	100 00
Conduit 1922 Loan Sinking Fund	690 70
Conduit 1928 Loan Sinking Fund	881 78
Conduit 1958 Loan Sinking Fund	196 50
School House 1957 Loan Sinking Fund	66 00
School House 1961 Loan Sinking Fund	56 25
Funding 1936 Loan Sinking Fund	856 19
Public Park Improvement 1955 Loan Sinking Fund	16 75
Water 1916 Loan Sinking Fund	1,449 46
Water 1922 Loan Sinking Fund	500 73
Water 1926 Loan Sinking Fund	703 56
Water 1943 Loan Sinking Fund	32 78
Water 1958 Loan Sinking Fund	30 25
New Engine House 1957 Loan Sinking Fund	66 00
Annex Improvement 1954 Loan Sinking Fund	118 15
Dock Improvement 1961 Loan Sinking Fund	4 50
Burnt District Improvement 1960 Loan Sinking Fund	65 75
New Sewerage Improvement 1980 Loan Sinking Fund	56 23
	$31,663 55

TRUST FUND.

Horwitz Benevolent Fund	504 15
	$32,167 70

SCHEDULE B—VII.

Funded Debt.

December 31, 1911.

Name of Loan.	Rate.	Authority for Issue.	When Redeemable	Amount.
Water	5 per cent.	Ord. 65, 1877	July 1, 1916	$5,000,000 00
Funding	5 per cent.	" 93, 1878	July 1, 1916	1,000,000 00
McDonogh Ex.	5 per cent.	" 157, 1890	Sept. 1, 1916	280,000 00
Harford Run	4 per cent.	" 86, 1879	Jan. 1, 1920	250,000 00
Patterson Park Ex.	4 per cent.	" 120, 1882	Oct. 1, 1920	200,000 00
Paving	4 per cent.	" 140, 1880	Nov. 1, 1920	500,000 00
Water	4 per cent.	" 91, 1882	Nov. 1, 1922	500,000 00
W. M. R. R.	4 per cent.	" 71, 1882	July 1, 1925	684,000 00
Annex Impvt.	4 per cent.	" 216, 1905	June 1, 1954	2,000,000 00
Public P'k Impvt.	4 per cent.	" 228, 1905	May 1, 1955	1,000,000 00
Water	4 per cent.	" 82, 1886	Nov. 1, 1926	1,000,000 00
New Eng'e House.	4 per cent.	" 239, 1907	June 1, 1957	1,000,000 00
New Sch'l House.	4 per cent.	" 240, 1907	June 1, 1957	1,000,000 00
Conduit	4 per cent.	" 142, 1908	Dec. 1, 1958	830,000 00
Burnt Dist. Impvt.	4 per cent.	" 391, 1909	Apr. 1, 1960	565,000 00
Jones Falls Impvt.	4 per cent.	" 555, 1910	Mar. 1, 1961	100,000 00
School House	4 per cent.	" 556, 1910	Mar. 1, 1961	500,000 00
Dock Impvt.	4 per cent.	" 557, 1910	Mar. 1, 1961	200,000 00
Paving	4 per cent.	" 661, 1911	Aug. 1, 1951	500,000 00
Conduit	3½ per cent.	" 120, 1896	Jan. 1, 1922	1,000,000 00
Conduit	3½ per cent.	" 87, 1902	Jan. 1, 1928	1,000,000 00
Internal Impvt.	3½ per cent.	" 98, 1888	July 1, 1928	4,850,000 00
Consolidated	3½ per cent.	" 58, 1890	July 1, 1930	5,000,000 00
Funding	3½ per cent.	" 112, 1896	July 1, 1936	1,453,300 00
Public Impvt.	3½ per cent.	" 100, 1892	Jan. 1, 1940	6,000,000 00
Refunding	3½ per cent.	" 32½, 1898	Jan. 1, 1940	4,300,000 00
Water	3½ per cent.	" 86, 1902	Jan. 1, 1943	1,000,000 00
Four Million	3½ per cent.	" 137, 1894	Mar. 1, 1945	4,000,000 00
W. M. R. R. Refnd.	3½ per cent.	" 18, 1898 " 32, 1900	Mar. 1, 1950	875,000 00
W. M. R. R. Refnd.	3½ per cent.	" 18, 1898 " 32, 1900	Jan. 1, 1952	1,000,000 00
Burnt Dist. Impvt.	3½ per cent.	" 71, 1904	June 1, 1954	6,000,000 00
New Sew. Impvt.	3½ per cent.	" 227, 1905	Oct. 1, 1980	9,000,000 00
W. M. R. R.	3½ per cent.	" 11, 1886	Jan. 1, 1927	1,704,000 00
Gen'l Fund Bonds.	¼ per cent.	" 564, 1910	Mar. 1, 1955	300,000 00
Stock due in 1860.	6 per cent.	Unredeem'd, no int. allowed.		482 00
Water Stock due in 1875	6 per cent.	Unredeem'd, no int. allowed.		270 00
Consolidated Stock due in 1890	6 per cent.	Unredeem'd, no int. allowed.		427 50
Five Million Stock due in 1890	6 per cent.	Unredeem'd, no int. allowed.		1,903 45
W. M. R. R. Stock due in 1902	6 per cent.	Unredeem'd, no int. allowed.		1,000 00
		Total funded debt		$64,595,382 95

SCHEDULE B—VII.—*Continued.*

Increase of Funded Debt authorized, but not yet issued:

Paving 4% 1951 Loan Ordinance No. 661, 1911	$4,500,000 00
Annex Improvement 4% 1951 Loan, Ordinance No. 662, 1911	2,500,000 00
Burnt District Improvement 4% 1960 Loan, Ordinance No. 391, 1909	120,000 00
General Fund Bonds ¼ of 1% 1955 Loan, Ordinance No. 564, 1910	2,700,000 00
Conduit 4% 1958 Loan, Ordinance No. 142, 1908	170,000 00
Water 4% 1958 Loan, Ordinance No. 141, 1908	5,000,000 00
Dock Improvement 4% 1961 Loan, Ordinance No. 557, 1910.	1,800,000 00
School House 4% 1961 Loan, Ordinance No. 556, 1910	1,000,000 00
Jones' Falls Improvement 4% 1961 Loan, Ordinance No. 555, 1910	900,000 00
New Sewerage Improvement 4% 1961 Loan, Ordinance No. 653, 1911	10,000,000 00
New Sewerage Improvement 3½% 1980 Loan, Ordinance No. 227, 1905	1,000,000 00
	$29,690,000 00

SCHEDULE B—VII*a*.

Accrued Interest on Funded Debt.

December 31, 1911.

2 months.	$5,000,000 00	Water	1916 Loan 5 %	$41,666 67
2 months.	1,000,000 00	Funding	1916 Loan 5 %	8,333 33
4 months.	280,000 00	McDonogh Ext.	1916 Loan 5 %	4,666 67
6 months.	250,000 00	Harford Run	1920 Loan 4 %	5,000 00
3 months.	200,000 00	Pat's'n Pk. Ext.	1920 Loan 4 %	2,000 00
2 months.	500,000 00	Paving	1920 Loan 4 %	3,333 33
2 months.	500,000 00	Water	1922 Loan 4 %	3,333 33
6 months.	684,000 00	W. M. R. R.	1925 Loan 4 %	13,680 00
2 months.	1,000,000 00	Water	1926 Loan 4 %	6,666 67
5 months.	500,000 00	Paving	1951 Loan 4 %	8,333 33
1 month.	2,000,000 00	Annex Imp.	1954 Loan 4 %	6,666 67
2 months.	1,000,000 00	Public Pk. Imp.	1955 Loan 4 %	6,666 67
1 month.	1,000,000 00	School House	1957 Loan 4 %	3,333 34
1 month.	1,000,000 00	Engine House	1957 Loan 4 %	3,333 34
1 month.	830,000 00	Conduit	1958 Loan 4 %	2,766 67
3 months.	565,000 00	Burnt Dist. Imp.	1960 Loan 4 %	5,650 00
4 months.	100,000 00	Jones Falls Imp.	1961 Loan 4 %	1,333 33
4 months.	500,000 00	School House	1961 Loan 4 %	6,666 67
4 months.	200,000 00	Dock Imp.	1961 Loan 4 %	2,666 66
6 months.	1,000,000 00	Conduit	1922 Loan 3½ %	17,500 00
6 months.	4,850,000 00	Internal Imp.	1928 Loan 3½ %	84,875 00
6 months.	1,000,000 00	Conduit	1928 Loan 3½ %	17,500 00
6 months.	5,000,000 00	Consolidated	1930 Loan 3½ %	87,500 00
6 months.	1,453,300 00	Funding	1936 Loan 3½ %	25,432 75
6 months.	6,000,000 00	Public Imp.	1940 Loan 3½ %	105,000 00
6 months.	4,300,000 00	Refunding	1940 Loan 3½ %	75,250 00
6 months.	1,000,000 00	Water	1943 Loan 3½ %	17,500 00
4 months.	4,000,000 00	Four Million	1945 Loan 3½ %	46,666 67
4 months	875,000 00	W.M.R.R. R'f'g	1950 Loan 3½ %	10,208 33
6 months.	1,000,000 00	W.M.R.R. R'f'g	1952 Loan 3½ %	17,500 00
1 month.	6,000,000 00	Burnt Dist. Imp.	1954 Loan 3½ %	17,500 00
3 months.	9,000,000 00	New Sew. Imp.	1980 Loan 3½ %	78,750 00
6 months.	1,704,000 00	W. M. R. R.	1927 Loan 3½ %	27,690 00
4 months.	300,000 00	G'n F'd Bonds,	1955 Loan ¼ %	250 00
				$765,219 43

SCHEDULE B—VII*b*.

Funds Held by Finance Commissioners for Sinking Funds.

December 31, 1911.

Stock:				
Water	1916 Loan 5	per cent.....	$1,132,000	00
Funding	1916 Loan 5	per cent.....	81,000	00
Harford Run	1920 Loan 4	per cent.....	27,600	00
Patterson Park Extension	1920 Loan 4	per cent.....	5,000	00
Paving	1920 Loan 4	per cent.....	3,000	00
W. M. R. R.	1925 Loan 4	per cent.....	126,300	00
Water	1926 Loan 4	per cent.....	73,000	00
Conduit	1922 Loan 3½	per cent.....	765,000	00
Conduit	1928 Loan 3½	per cent.....	896,100	00
Internal Improvement	1928 Loan 3½	per cent.....	430,800	00
Consolidated	1930 Loan 3½	per cent.....	347,259	97
Funding	1936 Loan 3½	per cent.....	146,000	00
Public Improvement	1940 Loan 3½	per cent.....	2,353,700	00
Refunding	1940 Loan 3½	per cent.....	1,273,600	00
Water	1943 Loan 3½	per cent.....	906,800	00
Four Million	1945 Loan 3½	per cent.....	2,222,400	00
W. M. R. R. Refunding	1950 Loan 3½	per cent.....	50,000	00
W. M. R. R. Refunding	1952 Loan 3½	per cent.....	203,000	00
Burnt District Improvement	1954 Loan 3½	per cent.....	2,997,400	00
New Sewerage Improvement	1980 Loan 3½	per cent.....	2,816,200	00
W. M. R. R.	1927 Loan 3¼	per cent.....	1,104,800	00
General Fund Bonds	1955 Loan 4	per cent.....	300,000	00
			$18,260,959	97

Certificates of Deposit:

Mercantile Trust and Deposit Co., 3¼ per cent..	$1,979,000	00	
Baltimore Trust Co., 3¼ per cent.....	1,184,000	00	
Security Storage and Trust Co., 3¼ per cent..	60,000	00	
American Bonding Company, 3¼ per cent....	200,000	00	
The National Bank of Baltimore, 3¼ per cent..	500,000	00	
National Bank of Commerce, 3¼ per cent.....	340,000	00	
			4,263,000 00
			$22,523,959 97

SCHEDULE B—VIIc.

Accrued Interest on Funded Debt in the Sinking Funds.

December 31, 1911.

2 months.	$1,132,000 00	Water	1916 Loan	5 %	$9,433 34
2 months.	81,000 00	Funding	1916 Loan	5 %	675 00
6 months.	27,600 00	Harford Run	1920 Loan	4 %	552 00
3 months.	5,000 00	Patterson Park Ext.	1920 Loan	4 %	50 00
2 months.	3,000 00	Paving	1920 Loan	4 %	20 00
6 months.	126,300 00	W. M. R. R.	1925 Loan	4 %	2,526 00
2 months.	73,000 00	Water	1926 Loan	4 %	486 66
6 months.	765,000 00	Conduit	1922 Loan	3½%	13,387 50
6 months.	896,100 00	Conduit	1928 Loan	3½%	15,681 75
6 months.	430,800 00	Internal Impt.	1928 Loan	3½%	7,539 00
6 months.	347,259 97	Consolidated	1930 Loan	3½%	6,077 05
6 months.	146,000 00	Funding	1936 Loan	3½%	2,555 00
6 months.	2,353,700 00	Public Improvement	1940 Loan	3½%	41,189 75
6 months.	1,273,600 00	Refunding	1940 Loan	3½%	22,288 00
6 months.	906,800 00	Water	1943 Loan	3½%	15,869 00
4 months.	2,222,400 00	Four Million	1945 Loan	3½%	25,928 00
4 months.	50,000 00	W. M. R. R. Rfdg.	1950 Loan	3½%	583 34
6 months.	203,000 00	W. M. R. R. Rfdg.	1952 Loan	3½%	3,552 50
1 month.	2,997,400 00	Burnt Dist. Impt.	1954 Loan	3½%	8,742 42
3 months.	2,816,200 00	New Sewerage Impt.	1980 Loan	3½%	24,641 75
6 months.	1,104,800 00	W. M. R. R.	1927 Loan	3¼%	17,953 00
4 months.	300,000 00	General Fund Bonds	1955 Loan	¼%	250 00
					$219,981 06

SCHEDULE B—VII*d*.

Accrued Rentals of Real Estate and Ground Rents upon the Books of the Commissioners of Finance.

December 31, 1911.

Old Fish House property	$40 47
Fayette and Arch streets	16 00
Pleasant and Calvert streets	25 00
Old City Yard property	96 69
Old City Yard property	300 00
Battery avenue	34 12
Charles and Weyler streets	50 43
Nos. 5, 7 and 9 Weyler street	37 50
No. 11 Weyler street	25 20
No. 13 Weyler street	14 40
No. 15 Weyler street	2 19
No. 17 Weyler street	2 19
Nos. 19 and 21 Weyler street	4 38
No. 23 Weyler street	2 20
No. 25 Weyler street	2 12
No. 27 Weyler street	2 19
Nos. 31 and 33 Weyler street	30 43
No. 35 Weyler streets	6 93
No. 37 Weyler street	15 24
Nos. 39 and 41 Weyler street	8 69
No. 43 Weyler street	17 10
No. 45 Weyler street	2 47
No. 49 Weyler street	2 19
Light and Weyler streets	6 50

Purchased by Authority of Ordinance No. 81, 1881:

Park avenue, near Preston street, Boys' Latin School	183 00
Hollins and Monroe streets, School No. 30	139 11
Northeast side Pennsylvania avenue, near Robert street, School No. 21	38 36
Old Frederick road and Fairview avenue, School No. 67	145 00
Waesche street, near Fremont, School No. 110	40 00
Castle street, School No. 77	52 32
Hanover and Lee streets, School No. 4	43 75
Sharp and West streets, School No. 29	47 50
Argyle avenue, near Lanvale street, School No. 91	11 38
Hull and Clement streets, School No. 76	58 32
Linden avenue and Wilson street, School No. 14	280 00
Charles and Ostend streets, School No. 92	62 08
Ann and Chase streets, School No. 94	125 43
Howard street, opposite Centre, Baltimore City College	166 66
Preston and Eden streets	6 66
Broadway and Bank streets, School No. 42	61 11
Mosher and Gilmor streets, School No. 11	147 18
Northeast Market	600 00
Collington Square	400 00
Perkins Spring Square	513 00
Riverside Park	314 22
Holliday and Fayette streets	18 64
Lexington and Paca streets	76 00
Bond street and Ashland avenue, School No. 111	65 00
Amount carried forward	$4,339 35

Amount brought forward	$4,339 35
Carey street and Columbia avenue, School No. 34	128 33
Chappell street, near Carey, School No. 112	157 50
Ramsay and Pulaski streets, School No. 96	96 00
Cross Street Market	162 34
Linden avenue and Konig street, School No. 61	192 50
Baltimore street, near Aisquith, School No. 93	66 67
Lombard street, near High, No. 3 Engine House	75 00
Rogers avenue and Low street	157 50
East side Woodberry lane, Annex School No. 7	11 25
Ann and Aliceanna streets, Primary School No. 6	6 36
East side York road, Waverly, No. 7 Truck (Annex Engine No. 4)	34 38
Brunswick street, between Frederick and Wilkens avenues, No. 8 Truck	30 75
Harlem avenue and Monroe street, School No. 78	240 00
Ashland avenue, east of Chester street	43 25
Pennsylvania avenue and Dolphin street, Colored High and Training School	414 35
Chester street and Ashland avenue	204 68
Francis street, between Fulton avenue and Barn alley, School No. 60	180 00
Patterson Park avenue and McElderry street, School No. 13	265 00
Biddle street, near Pennsylvania avenue, School No. 107	250 00
Lehman street and Millington avenue, School No. 68	23 33
Stiles street, near Gough, School No. 2	10 83
Eastern avenue and Streeper street, School No. 47	100 12
Old City Hall, Holliday street, near Lexington	51 00
Caroline street, between Lombard and Pratt streets, School No. 8.	89 45
	$7,329 94

SCHEDULE B—VII*e*.*

Enoch Pratt Free Library Fund.

HELD IN TRUST BY THE COMMISSIONERS OF FINANCE, UNDER ORDINANCE NO. 106, 1882.

Water 5% 1916 Loan	$54,300 00	
Funding 5% 1916 Loan	2,500 00	
		$56,800 00
Paving 4% 1920 Loan	$62,300 00	
Patterson Park 4% 1920 Loan	195,000 00	
Harford Run 4% 1920 Loan	900 00	
Water 4% 1922 Loan	500,000 00	
W. M. R. R. 4% 1925 Loan	2,100 00	
Water 4% 1926 Loan	1,000 00	
		761,300 00
Internal Improvement 3½% 1928 Loan	$13,200 00	
Consolidated 3½% 1930 Loan	113,200 00	
Public Improvement 3½% 1940 Loan	42,700 00	
Refunding 3½% 1940 Loan	145,100 00	
Four Million 3½% 1945 Loan	37,800 00	
		352,000 00
W. M. R. R. 3¼% 1927 Loan		4,000 00
		$1,174,100 00

*Trust Funds and not treated as assets of the city.

SCHEDULE B—VII*f**.

Horwitz Benevolent Fund.

HELD IN TRUST BY THE COMMISSIONERS OF FINANCE, UNDER RESOLUTION No. 7, 1881.

Water 5% 1916 Loan	$400 00	
Funding 5% 1916 Loan	2,600 00	
		$3,000 00
W. M. R. R. 4% 1925 Loan		300 00
Conduit 3½% 1928 Loan	$400 00	
Internal Improvement 3½% 1928 Loan	100 00	
Consolidated 3½% 1930 Loan	1,300 00	
Public Improvement 3½% 1940 Loan	3,000 00	
Refunding 3½% 1940 Loan	6,400 00	
Water 3½% 1943 Loan	700 00	
Four Million 3½% 1945 Loan	1,600 00	
Burnt District Improvement 3½% 1954 Loan	1,100 00	
New Sewerage Improvement 3½% 1980 Loan	600 00	
		15,200 00
W. M. R. R. 3¼% 1927 Loan		1,500 00
Cash		504 15
		$20,504 15

*Trust funds and not treated as assets of the city.

SCHEDULE B—VII*g**.

Frederick Raine Fund.

HELD IN TRUST BY THE COMMISSIONERS OF FINANCE, UNDER RESOLUTION No. 51, 1897.

Public Improvement 3½% 1940 Loan	$400 00

*Trust funds and not treated as assets of the city.

SCHEDULE B—VIII.

Uncollected Taxes as of December 31, 1911.

Year and Class.	Basis.	Rate per $100.	Tax Amount.	Total.
1911—Real	$44,662,150 00	$1 98	$884,310 57	
1911—Suburban	3,317,640 00	1 30	43,129 32	
1911—Rural	7,115,657 00	66	46,963 34	
1911—Personal	13,230,300 00	1 98	261,959 94	
1911—Securities	7,069,657 00	30	21,208 97	
1911—Savings Banks	49,186 00	18¾	92 22	
				$1,257,664 36
1910—Real	19,487,630 00	1 99	$387,803 84	
1910—Suburban	1,210,115 00	1 30	15,731 50	
1910—Rural	3,439,862 00	66⅓	22,817 75	
1910—Personal	8,226,693 00	1 99	163,711 19	
1910—Securities	4,752,387 00	30	14,257 16	
1910—Savings Banks	9,875 00	18¾	18 52	
				604,339 96
1909—Real	5,794,539 00	1 95	$112,993 52	
1909—Suburban	50,207 00	1 30	652 69	
1909—Rural	201,146 00	65	1,307 45	
1909—Personal	5,290,448 00	1 95	103,163 74	
1909—Securities	2,147,717 00	30	6,443 15	
1909—Savings Banks	13,241 00	18¾	24 83	
				224,585 38
1908—Real	13,956,842 00	2 00	$279,136 84	
1908—Personal	2,756,938 00	2 00	55,138 76	
1908—Securities	2,151,086 00	30	6,453 26	
1908—Savings Banks	238,318 00	18¾	446 85	
				341,175 71
1907—Real	5,481,894 00	1 97½	$108,267 41	
1907—Personal	1,846,503 00	1 97½	36,468 44	
1907—Securities	963,636 00	30	2,890 91	147,626 76
Total				$2,575,392 17

SCHEDULE B—IX.

Miscellaneous Accounts.

DR.	
Tax sales properly redeemed	$7,591 38
Car tickets on hand	252 50
Postage stamps on hand	151 52
Balance of sundry accounts for opening streets	60,376 56
Private paving and inspection	11,484 95
	$79,856 91
CR.	
Paving streets	80 54

SCHEDULE B—X.

Salaries Due December 31, 1911.

PAYABLE JANUARY 1, 1912.

Mayoralty	$468 41	
Law Department	1,039 24	
City Register	570 86	
Comptroller's Department	617 48	
Assistant Market Masters	266 66	
Assistant Inspectors of Weights and Measures	300 00	
		$3,262 65
City Council Clerks		520 79
City Council Members		2,916 66
Orphans' Court		832 00
Health Department		4,616 20
Quarantine		562 50
Sydenham Hospital		388 73
Court Bailiffs, Stenographers, etc		2,260 83
Superintendent Public Buildings		2,397 77
Bay View		2,717 13
Superintendent City Charities		483 33
Topographical Survey Commission		524 16
Collector of Water Rents and Licenses		1,250 88
City Collector		1,530 26
Superintendent of Lamps and Lighting		387 50
Liquor License Commission		966 67
City Librarian		187 50
Park Board		2,880 22
Water Board		11,219 20
Commissioners for Opening Streets		610 00
City Engineer		8,929 07
Sewerage Commission		7,349 37
Electrical Commission		4,412 53
Inspector of Buildings		2,260 01
Juvenile Court		958 32
Harbor Board		1,992 32
Jail Board		1,489 59
Free Public Bath Commission		575 80
Street Cleaning Department		3,657 11
Supervisors of Elections		1,071 50
Fire Department		30,144 58
Police Department		29,456 62
Police Examiners		400 00
Public Sewerage Commission		366 66
Amount carried forward		$133,848 46

Amount brought forward	$133,848 46
Supreme Bench	1,375 00
Magistrates	1,575 00
Coroner	1,500 00
Appeal Tax Court	2,429 16
Department Legislative Reference	256 66
Paving Commission	519 32
Municipal Factory Site Commission	136 66
	$141,640 26

SCHEDULE B—XI.

Sundry Bills Due December 31, 1911.

Water Board	$47,978 92
Inspectors of Weights and Measures	58 50
Law Department—Expense	171 50
Habitual Drunkards	498 75
Diary City Council—Expense	3,616 94
Tax Department—Expense	464 25
Free Public Bath Commission—Expense	1,292 04
Judgments, Suits	839 15
Fire Department	24,687 31
Paving Commission	18,021 55
Sewerage Commission	138,113 18
Health Department—Expense	1,663 51
Sydenham Hospital—Expense	1,578 42
Quarantine Hospital—Expense	346 13
Park Board	12,141 77
City Engineer	13,850 58
Superintendent Public Buildings	2,398 11
Commissioners of Finance	475 00
Chesapeake and Potomac Telephone Company	1,807 86
Markets	566 00
Street Cleaning Department	2,030 43
Inspector of Buildings	25,344 25
Polytechnic Institute Building	8,925 20
School Board	9,791 86
Harbor Board	3,400 90
Electrical Commission	9,422 41
Commissioners for Opening Streets	24,473 42
Appeal Tax Court	292 10
Lamps and Lighting Department	30,856 95
Bay View	19,745 88
Supervisors of Elections	59 00
Police Department—Expenses	916 66
Police Examiners—Expenses	83 06
Superior Court—Expenses	1,768 83
Baltimore City Court—Expenses	55 20
Court of Common Pleas—Expenses	1,110 30
Circuit Court, Nos. 1 and 2	172 00
Criminal Court (Sheriff, State's Attorney, Clerk)	10,885 00
City Charities	136 35
Baltimore Audit Company	8,500 00
Baltimore Sanitary Contracting Company (final payment)	58,275 00
Maryland School for the Blind (two notes, dates January 16, 1909, for $75,000 each—Ordinance 296, 1909)	150,278 50
	$637,092 78

SCHEDULE B—XII.

Water Department.

STATEMENT OF LAND, CONSTRUCTION AND REAL ESTATE TO DECEMBER 31, 1911.

	Area.	Cost of Land.	Cost of Construction.	Cost of Buildings.
	A. R. P.			
Lake Montebello	153 2 3	$175,135 00	$961,718 06	$12,795 01
Lake Clifton	44 3 32	33,555 00	692,777 63	3,500 00
Mt. Royal Reservoir	14 3 22	18,809 63	112,352 72	2,000 00
Druid Lake	110	100,394 91	1,234,179 01	.....
Hampden Reservoir	20 3 29¾	16,700 00	206,643 53	2,700 00
Western High Service Reservoir	.....	.....	112,518 57	.....
Guilford Reservoir	12 3 29	23,276 25	136,444 99	2,950 00
Loch Raven	1613 0 42³/₁₀	100,218 02	755,825 82	26,002 21
Gunpowder Conduit	.....	21,849 25	1,757,760 99	.....
Lake Roland	265 1 30	109,683 00	264,923 20	4,297 01
Jones Falls Conduit	20 1 4½	32,704 00	536,339 35	.....
West Arlington Standpipe	3 3 3	2,500 00	30,000 00	9,667 74
Ashburton Lake	58.66	57,685 51	672,214 15	18,612 36
Old City Hall	.....	.....	.....	30,524 61
Western Pumping Station	.....	.....	.....	53,577 00
Eastern Pumping Station	3 2 37⅕	16,200 00	.....	72,660 82
Stable (Gay street yard)	.....	.....	.....	15,577 00
Machine Shop	.....	.....	.....	39,794 53
Store House	.....	.....	.....	30,755 15
Mt. Royal Pumping Station	2 0 35	50,000 00	.....	190,891 00
Roland Standpipe	.....	4,500 00	48,212 38	.....
Blacksmith Shop	.....	.....	.....	1,141 48
Filter plant	9¹³/₁₀₀	3,508 16	.....	.....
New Loch Raven Dam	342⁶⁵/₁₀₀	56,375 71	.....	.....
		$823,094 44	$7,521,910 40	$517,237 38
				7,521,910 40
				823,094 44
Total land, construction and real estate				$8,862,242 22
Mains laid, 759 miles—2,082 feet.				5,132,202 30
Total				$13,994,444 52

SCHEDULE B—XIII.

Electrical Commission.

AMOUNT AND LOCATION OF TERRA COTTA CONDUIT AND FIBRE LAID IN THE YEAR 1911.

1911. LOCATION.	Totals.		Grand Totals.
	Terra Cotta Duct Feet.	Fibre Duct Feet.	Duct Feet.
Wolfe street, from Pratt to Fayette streets	21,024.0	1,760.5	22,784.5
Seventh Street Bridge	.....	1,128.0	1,128.0
Maryland avenue, from Lanvale street to North avenue	10,492.2	654.6	11,146.8
Harford avenue, from Monument street to Atlantic avenue	270,399.7	23,614.7	294,014.4
Eutaw street, from Henrietta to Stockholm streets	12,884.4	2,840.2	15,724.6
Charles street, from Barre to Lee streets	6,611.2	417.7	7,028.9
Lee street, from Light to Charles streets	2,967.0	494.5	3,461.5
Scott street, from Lombard street to Columbia avenue	8,613.6	717.8	9,331.4
Pratt street, from Sharp to Scott streets	34,668.0	1,120.5	35,788.5
McClellans alley, from Baltimore to Fayette streets	3,690.0	205.0	3,895.0
Shaarp street, from Baltimore to Fayette streets	10,386.6	.....	10,386.6
Laurens street, from Fulton avenue to Monroe street	2,631.6	438.6	3,070.2
Preston street, from Greenmount avenue to Brentwood street	1,153.6	144.2	1,297.8
South street, from Lombard to Pratt streets	3,267.6	96.0	3,363.6
Brevard street, from Hoffman to Dolphin streets	4,471.0	1,482.9	5,953.9
Dolphin street, from Brevard street to Mt. Royal avenue	297.0	66.0	363.0

Hudson alley, Central avenue, Columbia avenue Arlington avenue, Pratt street, Chocolate alley Franklin street, Calhoun street, Fulton avenue Mount street Water street, Pennsylvania avenue, Madison street Guilford avenue, Preston street, Baltimore street, Harford avenue Hillen street, Eutaw street, Charles street, Broadway Monument street, Lombard street, Bond street, Gay street Milton avenue, Light street, Eager street, Ashland avenue Howard street, Fayette street, Buren street, Biddle street Castle street, Hughes street, Warden street, Greenmount avenue Falls road, Marshall street, Hisselberger court, Central avenue Stansbury alley, West street, Hanover street, Ensor street, High street Gittings street, Patterson avenue, Lanvale street, Calvert street Saratoga street, Chase street, Lafayette avenue, Oliver street Brannon court, Scott street, Lexington street, Read street Jordan alley, Davis street, Garrison avenue, North avenue, Dolphin street. Cedar avenue, Custom House avenue, Front street Patapsco street	21,996.6	22,315.2	44,311.8
Hamburg street, Henrietta street, Charles street, Hill street Montgomery street, Greenmount avenue, Light street Patterson avenue, Fremont avenue	200,640.0	60,760.6	261,400.6
Baltimore street, Cheapside, Hollingsworth street, Paca street Howard street, North Gay street, High street, Exeter street Cross street, Hillen street, Lexington street, Poultney street Hamburg street, Mott street, Stansbury alley, Clay street Hughes street, York street, Eden street, Patapsco street Caroline street German street, Charles street, West street Water street, Front street, Hanover street, Henrietta street Montgomery street, Gittings street, Fort avenue, Broadway Camden street, Sharp street, Hollingsworth street, Ensor street Marshall street, Light street, Frederick street Franklin lane, Lombard street, Arlington avenue Hamilton street, Constitution street	39,239.4	23,170.8	62,410.2

1911.

LOCATION.	Totals. Terra Cotta Duct Feet.	Totals. Fibre Duct Feet.	Grand Totals. Duct Feet.
Clifton Park, Light street, Charles street..... Saratoga street, Pratt street, Lombard street..... Robert street, Garrison avenue, Central avenue..... Eutaw street, Baltimore street, Howard street..... Camden street, Gay street, Harford avenue..... Clay street, Hunter alley, Sharp street.....	2,291.0	1,706.2	3,997.2
Totals.....	657,724.5	143,134.0	800,858.5

SUMMARY.

Duct Laid.		Cost.
800,858.5	duct feet laid in 1911, gross.....	$217,677 03
3,997.2	duct feet deducted, special construction.....	6,515 47
796,861.3	duct feet laid in 1911, net.....	$211,161 56
9,184,649.2	duct feet previously laid.....	2,092,662 48
9,981,510.5	total investment as of December 31, 1911.....	$2,303,824 04

SCHEDULE B—XIV.

Wharf Property Owned By the City of Baltimore.

PUBLIC WHARVES AND DOCKS.

Being the system of wharves and docks along Pratt street, from Light street to Jones' Falls and East Falls avenue bulkhead.

LOCATION.	Acquired and Constructed.	Cost of Property.	Cost of Construction.	Total.	Lindsay and Bernard Valuation, 1911.
Pratt street bulkhead	1904–1908	.....	$34,219 27	$34,219 27	$154,000 00
Pier 1, Pratt street	1904–1908	$264,133 34	118,015 23	382,148 57	496,800 00
Pier 2, Pratt street	1904–1908	516,492 85	139,560 03	656,052 88	640,000 00
Pier 3, Pratt street	1904–1908	384,021 75	164,397 12	548,418 87	772,000 00
Pier 4, Pratt street	1904–1911	194,284 02	347,264 02	541,548 04	b541,548 04
Pier 5, Pratt street	1904–1911	889,588 25	364,317 49	1,253,905 74	b1,253,905 74
Pier 6, Pratt street	1904–1911	951,363 76	517,281 86	1,468,645 62	b1,468,645 62
Pier 7, Lancaster street	1908–1909	.....	20,242 08	20,242 08	100,000 00
Pier 8, Lancaster street	1908–1909	.....	23,470 78	23,470 78	150,000 00
Pier foot of Calvert street	Ord. 228, 1908	.....	807 33	807 33	b807 33
Office building, Pier 4	1910	.....	4,804 20	4,804 20	b4,804 20
East Falls avenue bulkhead	1909	.....	219,448 29	219,448 29	b219,448 29
Recreation Pier, Broadway	a1911–1912	.....	4,430 03	4,430 03	b4,430 03
Waterfront street, south side harbor	a1911–1912	.....	149,972 03	149,972 03	b149,972 03
Pratt street bridge	a1911	.....	84,711 20	84,711 20	b84,711 20
Totals	.....	$3,199,883 97	$2,192,940 96	$5,392,824 93	$6,041,072 48

a Not completed. b Actual cost figures.

Lot foot Aliceanna and President streets			$40,000 00
Lancaster Dock and Caroline street, 120x585			105,300 00
3,000	Square feet, foot of Point street to water edge (75 feet on Point street)		3,000 00
11,368	Square feet, foot of Wills street to water edge (196 feet on Wills street)		5,684 00
200	feet bed of Wills street, approach to water, not valued		.....
127	feet by 65 feet, foot of South Thames street to water edge		4,953 00
37	feet abreast of Bond street, north of water 7 feet, south 43 feet		.....
42	feet foot of Ann street, bulkhead only, not valued		.....
70	feet by 284 feet, foot of East Thames street to water edge		5,964 00
40	feet on Lancaster street, length from building line to water, 307 feet		.....
		Annual Rental.	
66	feet by 14 feet, foot of Camden street	$3,618 00	59,400 00
65	feet by 14 feet, foot of Barre street	2,000 00	52,000 00
66	feet by 14 feet, foot of Conway street	3,510 00	49,500 00
66	feet, foot of Hughes street (without pier rights)	96 00	1,200 00
82	feet, foot of Montgomery street (without pier rights)	100 00	1,600 00
50	feet, foot of William street	25 00	5,000 00
80	feet, foot of Henry street	60 00	7,500 00
66	feet, foot of Covington street	120 00	7,500 00
50	feet foot of Cross street	100 00	2,500 00
66	feet, foot Battery avenue and Johnson street,	25 00	13,200 00
1,058	feet east of Jones' Falls, from Granby street to lower end of Canton avenue bridge, 10,580 square feet		10,580 00
715	feet south of Canton avenue bridge, 7,150 square feet		10,725 00
1,079	feet from the lower end of the Falls to Harford Run, included in City Dock lot		.....
600	feet from Harford Run to Caroline street, included in City Dock lot		.....
82	feet on Caroline street, north of Slip Head		
78	feet on Caroline street, south of Slip Head		
982	feet new wharf, south side Back Basin to corner	13,070 square feet	13,070 00
325	feet from corner of new wharf to bridge		
85	feet Stone Wharf, outside of bridge, on Block street		
	Total		$398,676 00
	Grand valuation		$6,439,748 48

SCHEDULE B—XV.

Miscellaneous City Property—Public Buildings and Real Estate.

	Acquired.	Size of Lot.	Cost. Lot.	Ground Rent.	Building.	Lindsay and Bernard Valuation, 1911.
City Hall	1866	240x155	$116,276 65	$56 00*	$2,271,135 64	$1,295,800 00
Court House	1893	326.9x198.11	435,899 65	.....	2,261,110 38	3,772,500 00
Baltimore City Jail	1853	536x200x400	17,500 00	.....	337,506 98	
Baltimore City Jail workshop	1908	.....	.....	.....	13,658 93	473,616 00
City Jail, addition	1909	.....	.....	.....	54,131 75	
Bay View Asylum	1862	70⅛ acres.	14,967 15	.....	592,778 57	
Bay View addition	1903	142 acres.	49,666 97	.....	11,313 44	585,467 00
Municipal Hospital	1908	.....	.....	.....	37,409 16	
Tuberculosis Hospital	.....	.....	.....	.....	.....	.....
Sydenham Hospital	.....	.....	.....	.....	.....	.....
Eastern Potter's Field	1876	6¼ acres.	1,500 00	.....	.....	1,250 00
Quarantine Hospital	1859	20 acres.	2,500 00	.....	45,492 96	44,119 00
Old Quarantine	1845	180 acres.	2,500 00	.....	.....	72,000 00
Property Yard	1898	291x130x82	.....	540 00*	.....	.....
Western Potter's Field	1872	14²/₁₀ acres.	2,500 00	.....	.....	2,840 00
City Morgue	1893	18x71	2,000 00	.....	5,000 00	6,806 00
Fourth Regiment Armory	1856	144x98	.....	1,188 00	60,000 00	26,412 00
Boys' Latin School lot	1881	91.6x150	.....	549 00*	.....	.....
Old City Hall, Holliday street	.....	52x107⅓	.....	306 00*	.....	7,750 00
Lot, Hunter alley, near Mt. Royal avenue	1907	104x60	7,000 00	.....	.....	2,600 00
Street Cleaning Depart., Granby street	1910	40x100	2,543 21	.....	†45,000 00	†47,543 21
City Yard, opposite Boyle street, at Clement street, to water line	1832	.....	made ground.	.....	.....	30,000 00
Boys' Home, Pleasant and Calvert streets, ground rent	1869	.....	.....	.....	.....	1,250 00
Totals	.....	.....	$654,853 63	$2,639 00	$5,734,537 81	$6,369,953 21

*Owned by Commissioners of Finance and deducted in Lindsay and Bernard's Valuation, 1911, and listed as asset of Sinking Fund in Schedule B—XXI.

†Approximated; not included in Lindsay and Barnard's Valuation, 1911.

SCHEDULE B—XVI.

Public Schools.

School.	Location.	Erected.	Size of Lot.	Ground Rent.	Cost. Lot.	Cost. Building.	Lindsay & Bernard Valuation, 1911.
Administration Bldg.	Madison and Lafayette avenues	1895	104.8 x230	.....	.....	$40,000 00	$268,866 00
Western High School	McCulloh street and Lafayette avenue	1895	97.9 x230	.....	$70,666 66	82,000 00	
Western High School	Addition	1909	100 x 90	.....	18,584 68	165,837 38	
Balto. City College.	Howard street, near Centre.	1896	208.6 x245	$1,000 00* 3,600 00	.....	203,639 00	287,990 00
Eastern High School	Broadway and North avenue	1904	189 x200	.....	31,679 37	365,506 54	373,350 00
Polytechnic Institute	Courtland street	1868	90 x182½	220 00	34,237 75	43,000 00	32,162 00
New Polytecnic Ins..	North and Guilford avenues.	1909	303 x726	.....	345,932 60	68,624 27	a436,424 27
Colored High School	Penna. avenue and Dolphin street	1893	144½ x 80	1.147 50*	.....	26,000 00	35,412 00
School No. 1.....	N. E. Cor. Fayette and Greene streets	1880	97 x102	354 00	9,000 00	25,000 00	26,900 00
School No. 2.....	Gough and Stiles streets....	1854	70 x 92	50 00* 200 00	3,500 00	9,000 00	65,850 00
School No. 2.....	New building	1909	145 x 92	.....	25,261 96	59,537 15	
School No. 3.....	Eastern and Montford avenues	1880	100 x150	350 00	.....	24,000 00	14,550 00
School No. 4.....	Hanover and Lee streets....	1896	50 x104 128 x 76	210 00* 135 00	18,000 00	35,000 00	b48,418 80
School No. 4.....	Addition	1910	25 x 81	.....	8,203 30	.....	
School No. 5.....	Broadway and Ashland avenue	1876	120 x120	600 00	.....	18,000 00	12,360 00
School No. 6 (old).	Ann street, near Canton avenue	1878	63 x140	22 50* 90 00	6,800 00	14,800 00 3,193 83	20,068 00

School No. 6.....	Addition	1909	68x87 x144	.....	31,211 00	.....	.....
School No. 7.....	Millikin street, near Aisquith	1864	75.9 x100	.....	E. F. H. S. Lot	5,000 00	4,875 00
School No. 8.....	Caroline street, near Lombard	1888	105½ x150	221 34	$6,200 00	18,000 00	18,851 00
School No. 9.....	S. W. Cor Fayette and Greene streets.....	1875	77½ x170	1,094 75	.....	27,000 00	5,307 00
School No. 10.....	Hollins street, near Schroeder	1855	143.9 x134	200 00	13,217 71	75,000 00	72,188 00
School No. 11.....	Gilmor and Mosher streets..	1886	126.10x166.10	757 00*	.....	42,000 00	23,553 00
School No. 12.....	Barre and Warner streets..	1870	67 x120	268 00	.....	16,000 00	6,920 00
School No. 13.....	Patterson Park avenue and McElderry street.....	1890	155 x115	530 00	10,000 00	21,000 00	18,587 00
School No. 14.....	Linden avenue and Wilson street	1882	150 x105	840 00*	.....	21,000 00	9,660 00
School No. 15.....	Saratoga street and Carrollton avenue.....	1872	100 x150	700 00	.....	24,000 00	8,000 00
School No. 16.....	Harford and Ashland avenues	1876	105 x180	790 00	.....	17,000 00	.....
School No. 17.....	Light and Poultney streets..	1875	62.1 x122	217 00	800 00	16,000 00	11,935 00
School No. 19.....	Hollins street, near Monroe.	1875	87½x129	375 00*	.....	18,000 00	11,250 00
School No. 20.....	Eden and Preston streets....	1868	100 x207	80 00* 512 00	6,000 00	43,000 00	20,200 00
School No. 21.....	Penna. avenue and Robert street	1869	80 x156	86 00* 234 00	.....	16,000 00	9,500 00
School No. 22.....	Ramsay and Scott streets...	1865	71 x128½	177 50	150 00	15,000 00	4,112 00
School No. 22.....	Hamburg and Wyeth streets (new)	....	.....	.....	c51,520 09	.....	c51,520 09
School No. 23.....	Gough and Wolfe streets....	1866	75 x110	150 00	2,983 33	19,000 00	12,375 00
School No. 24.....	Fait avenue and Patuxent street	1890	150 x100	.....	7,500 00	21,000 00	26,000 00
School No. 25.....	Bond street, near Canton avenue	1867	110 x129½	.....	14,962 50	25,000 00	21,475 00
School No. 26.....	Orleans and Bond streets...	1874	84 x 75	126 00	4,500 00	15,000 00	8,790 00
School No. 27.....	Fayette and Chester streets.	1869	120 x 91½	274 50	.....	18,000 00	8,628 00
School No. 27.....	Fayette and Chester streets (new)	....	.....	.....	c11,579 69	.....	c11,579 69

SCHEDULE B—XVI—*Continued.*

School.	Location.	Erected.	Size of Lot.	Ground Rent.	Cost. Lot.	Cost. Building.	Lindsay & Bernard Valuation, 1911.
School No. 28.....	Battery avenue and Clement street	1869	75 x 82	$157 50* / 112 50	$1,000 00	$7,500 00	$625 00
School No. 29.....	Sharp street, near West.....	1886	114 x155	570 00*	.....	21,600 00	8,880 00
School No. 30.....	Hollins street, near Monroe.	1875 / 1902	111 x129	375 00*	4,250 00	16,000,00	7,175 00
School No. 31.....	Schroeder and Pierce streets..	1890	60 x124	48 00 / 180 00	2,500 00	21,000 00	20,700 00
School No. 32.....	Guilford avenue and Lanvale street	1890	80 x154	.....	11,800 00	21,000 00	30,000 00
School No. 33.....	Light and Clement streets..	1890	100 x100	.....	10,000 00	21,000 00	30,000 00
School No. 34.....	Carey street and Columbia avenue	1896	100 x160	385 00*	.....	30,000 00	31,584 00
School No. 35.....	Hanover and Winder streets	1895	132 x198	.....	6,700 00	28,297 00	33,960 00
School No. 37.....	Biddle street and Patterson Park avenue.....	1895	165 x150	.....	8,500 00	25,000 00	36,900 00
School No. 38.....	Chesapeake and Hudson sts.	1853	80 x100	.....	(Donated)	5,000 00	5,000 00
School No. 39.....	Carrollton and Riggs avenues	1888	97 x157	.....	7,000 00	19,000 00	26,790 00
School No. 40.....	Aisquith and Mullikin streets	1868	141½x210	615 90	15,591 66	80,000 00	33,752 00
School No. 42.....	Broadway and Bank street.	1888	100 x141	44 44 / 200 00*	.....	30,000 00	43,889 00
School No. 43.....	High street, near Fayette...	1875	80 x167	900 00	.....	28,800 00	1,000 00
School No. 43 Brch.	124-6 N. High street.....	1903	30 x136.6	.....	.....	**5,000 00	
School No. 44.....	Sharp street, near Montgomery	1869	100 x155	600 00	.....	18,000 00	2,500 00
School No. 45.....	Greenmount avenue and Eager street.....	1872	66 x152	600 00	.....	17,000 00	950 00
School No. 46.....	Division and Lanvale streets	1877	104½ x 171¼	800 00	.....	28,255 66	1,225 00

School No. 47.....	Eastern avenue and Patuxent street.....	1897	144 x300	1,001 00*	.....	50,000 00		61,517 00
School No. 48.....	Hollins and Monroe streets.	1875	127½ x 129½	700 00	.....	21,000 00		4,120 00
School No. 49.....	Cathedral and Biddle streets	1908	60 x230	.....	.....	**60,000 00		78,000 00
School No. 50.....	Gorsuch avenue and Homestead	1889	42 x 90	.....	1,000 00	4,500 00		3,260 00
School No. 51.....	York Road, Waverly.....	1889	100 x200	.....	4,000 00	14,500 00		16,000 00
School No. 51.....	New building, Windemere avenue	1909	236 x242	.....	16,122 45	162,401 84		d178,524 29
School No. 52.....	Oak and Twenty-fifth streets	1889	60 x160	.....	4,000 00	10,000 00		11,000 00
School No. 53.....	St. Paul and Twenty-sixth streets	1897	200 x123	.....	21,713 41	60,000 00		89,000 00
School No. 54.....	Huntington avenue, near Charles, with addition....	1890 1908	220 x150	.....	7,000 00 10,000 00	38,000 00		62,000 00
School No. 55.....	Chestnut and Fourth avenues	1890	176 x220	.....	5,000 00	44,433 12		
School No. 55.....	Addition	1902	120 x 48	.....	1,200 00	46,769 42		105,840 00
School No. 55.....	Addition to the "Pitt" lot..	....	175 x225	.....	6,075 68	.....		
School No. 57.....	Church street, near Merryman's lane	1889	88 x245½	.....	1,300 00	700 00		2,541 00
School No. 58.....	Woodberry avenue, Woodberry	1889	45 x130	22 50*	.....	10,000 00		6,113 00
School No. 59.....	Reisterstown Road and Fifth avenue	1908	297 x241 401 x150	.....	5,500 00	117,077 62		120,940 00
School No. 60.....	Francis and Clifton streets..	1893	40 x150 150 x200	30 00 450 00*	.....	35,539 00		g65,102 94
School No. 60.....	Addition	1908	.....	.....	.....	4,208 30		
School No. 60.....	Addition	1910	61.6 x150	.....	5,186 13	57,439 81		
School No. 60 Br...	Clifton street, near Pennsylvania avenue.....	....	40 x150	.....	Nominal.	.....	.....	
School No. 61.....	Linden avenue and Koenig street	1897	165 x150	1,155 00*	.....	54,000 00		60,550 00
School No. 62.....	Walbrook avenue and Smallwood street.....	1902	150 x210	.....	5,000 00	65,203 81		89,850 00
School No. 63.....	Ninth and Northwest streets	1894	128 x226.6	.....	4,718 66	25,000 00		h4,218 49
School No. 63 Br...	Addition now under constr...	.....	.....	.....	.....	7,064 49		

School.	Location.	Erected.	Size of Lot.	Ground Rent.	Cost. Lot.	Cost. Building.	Lindsay & Bernard Valuation, 1911.
School No. 64.....	Garrison avenue and Main avenue	1905	192½ x323	.....	$6,000 00	$43,167 05	
School No. 64.....	Addition now under constr...	.....	.....	.....	.....	28,547 06	$173,237 06
School No. 65.....	Calverton, Bloomingdale road.	1893	291¼ x171 5-6	.....	1,500 00	15,500 00	17,280 00
School No. 65.....	Additional lots.....	1908		.....	5,000 00		
School No. 66.....	Old Frederick road, Thirteenth and Carroll.....	1892	61 x238	.....	$2,000 00	$4,500 00	$3,720 00
School No. 67.....	Old Frederick road, Fairview	1892	150 x257	$360 00*	.....	15,000 00	11,140 00
School No. 68.....	Millington and Lehman ave.	1892	80 x200	.....		21,000 00	18,000 00
School No. 68.....	Addition	1910		240 00*	6,532 65	.....	
School No. 70.....	William st. and Warren ave.	1850	70 x140	175 00	36,032 33	19,000 00	20,705 00
School No. 70.....	Addition	1911	118.5 x140.5			114 14	
School No. 71.....	Bond and Jefferson streets..	1884	70 x152.5	19 00	8,700 00	20,000 00	19,725 00
School No. 72.....	Ridgely street, near Fremont avenue.....	1877	124.5 x155	620 62	.....	47,655 51	f32,610 51
School No. 73.....	Aisquith street, near Lexington	1870	100 x152	25 00	17,100 00	20,000 00	18,875 00
School No. 74.....	Twenty-second and Cromwell streets.....	1902	200 x246	.....	7,000 00	71,110 47	98,500 00
School No. 75.....	Carrollton avenue and Lexington street.....	1886	191 x160 1-3	400 00	10,000 00	40,000 00	37,550 00
School No. 76.....	Clement and Hull streets...	1882	100 x153	350 00*	.....	18,000 00	j21,768 94
School No. 76.....	Addition	....	.....	.....	.....	27,809 88	
School No. 77.....	Washington and Fayette streets	1871	93 x134	372 00 209 25*	.....	20,000 00	4,329 00

School No. 78..... Harlem avenue and Monroe street	1893	167	x249½	480 00*	800 00	30,500 00	41,465 00
School No. 79..... Park avenue and Hoffman street	1892	120	x150	1,020 00	.....	35,000 00	30,600 00
School No. 80..... Eden and Federal streets...	1890	100	x180	.....	8,000 00	33,000 00	44,000 00
School No. 81..... Gilmor and Presstman streets	1875	155.6	x116.5	620 00	.....	18,350 00	8,808 00
School No. 82..... Mulberry street, near Fremont avenue.....	1868	87.8	x134	350 67	.....	15,000 00	4,616 00
School No. 83..... Lakewood avenue and Orleans street	1902	200	x145	.....	9,166 46	53,475 90	95,000 00
School No. 83..... Lakewood avenue and Fayette street.....	1907	143	x145	.....	6,265 45	.....	7,250 00
School No. 84..... Johnson and Heath streets..	1902	148¼	x214½	.....	10,000 00	69,218 35	96,853 00
School No. 85..... Lakewood avenue and Oliver street	1904	150	x320¼	.....	4,440 05	92,296 85	100,000 00
School No. 86..... Mulberry and Payson streets	1908	190	x160	.....	6,000 00	122,884 41	e102,017 41
School No. 86..... Additional lots.....	1910			.....	8,037 73	4,417 41	
School No. 91..... Argyle avenue, near Lanvale street	1858	80	x140	120 00* 195 00	.....	13,000 00	2,325 00
School No. 92..... Charles and Ostend streets.	1882	91.6½	x219.2	372 50*	.....	28,000 00	26,113 00
School No. 92..... Addition	....			.....	2,305 50	.....	.....
School No. 93..... Baltimore street, near Aisquith	1879	120	x170	300 00* 1,000 00	5,000 00	28,000 00	5,500 00
School No. 94..... Chase and McDonogh streets	1882	80	x223	501 75*	.....	38,675 00	24,443 00
School No. 95..... Lexington street, near Fremont avenue.....	1890	81	x220.6	.....	15,000 00	25,000 00	37,150 00
School No. 96..... Ramsay and Smallwood streets.....	1895	357	x231	480 00*	4,000 00	90,267 23	119,850 00
School No. 98..... Ramsay and Pulaski streets..						31,617 77	
School No. 99..... North avenue and Washington street	1891	120	x250	.....	9,000 00	25,000 00	45,000 00
School No. 99..... Addition	1910			.....	4,229 47	.....	
School No. 100..... Mount and Saratoga streets.	1896	151	x156	.....	10,000 00	63,315 16	89,060 00
School No. 101..... Jefferson street, near Caroline.	1855	83½	x 80	200 00	1,350 00	5,000 00	.....
School No. 103..... Division and Lanvale streets.	1877	104.2	x171¼	800 00	.....	28,255 66	.....

School.	Location.	Erected.	Size of Lot.	Ground Rent.	Cost.		Lindsay & Bernard Valuation, 1911.
					Lot.	Building.	
School No. 105.....	Rogers avenue ,near Lexington street.....	1874	75 x105	25 00	5,025 00	14,000 00	9,250 00
School No. 106.....	Hill and Sharp streets.....	1893	99 x155	192 00	16,000 00	27,000 00	29,150 00
School No. 107.....	Biddle street, near Pennsylvanie avenue.....	1870	70 x150	70 00	15,000 00	10,000 00	7,250 00
School No. 108.....	Caroline street, near Bank...	1867	76 x 90	134 00	4,800 00	8,000 00	3,310 00
School No. 109.....	Fremont avenue, near Lombard street.....	1843	75 x157	.....	1,200 00	8,000 00	15,000 00
School No. 110.....	Waesche street, near Fremont avenue.....	1877	143¾ x120	480 00*	.....	22,000 00	10,430 00
School No. 111.....	Bond street, near Ashland avenue	1864	80 x 80	130 00*	1,200 00	7,000 00	3,050 00
School No. 112.....	Carey and Chappell streets..	1897	129¾ x135	630 00*	.....	40,408 70	44,040 00
School No. 113.....	Girard avenue and Sherman.	1895	120 x124	.....	7,200 00	23,968 00	34,200 00
School No. 115.....	Merryman's lane, Waverly..	1889	32½ x127-5	50 00	750 00	4,500 00	1,900 00
School No. 116.....	Druid Hill avenue, near Biddle street.....	1841	75 x100	150 00	.....	12,000 00	4,250 00
Chester street and Ashland avenue.....		1898 1900	200 x133	829 75*	4,750 00	.....	.....

Pennsylvania avenue and Biddle street	1898	92.2	x200	1,500 00*	.....	.....	.....
North of Orem lane, lot	1907	180	x134	.....	15,000 00	.....	15,300 00
Parental School, Old Frederick road	1907	400 370	x416 x353	.....	7,009 30	.....	8,320 00
Frederick road, west of Millington lane, lot	.....	40	x289	50 00	.....	.....	.....
Totals	.....	.....	.....	$38,010 47	$1,174,542 57	$4,414,081 81	$4,742,070 49

Equipment of Schools:		
1,600 classrooms in the elementary schools, estimated cost of equipping office, teachers' room, manual training room, cookery, kindergarten and assembly hall at $300	$480,000 00	
5 secondary schools at $50,000, exclusive of supplies, but including laboratory tables, gymnasium apparatus lockers etc.	*k*250,000 00	
		*k*730,000 00
Grand total valuation		$5,472,070 49

*Owned by Commissioners of Finance and deducted in Lindsay and Bernard valuation, 1911, and listed as assets of Sinking Fund in Schedule B—XXI.

**Lot and building.

*a*Lindsay and Bernard valuation, 1911, $367,800; add $68,624.27 improvements subsequently; total, $436,424.27.

*b*Includes $1,513.80 for lot purchased in 1911 after Lindsay and Bernard valuation.

*c*Cost of new lot to December 31, 1911; more ground to be acquired.

*d*Astual cost; not included in Lindsay and Bernard valuation, 1911.

*e*Includes $4,417.41 expended in 1911 after Lindsay and Bernard valuation.

*f*Includes 22,655.51 expended in 1911 after Lindsay and Bernard valuation.

*g*Includes 34,652.94 expended in 1911 after Lindsay and Bernard valuation.

*h*Includes 7,064.49 expended in 1911 after Lindsay and Bernard valuation.

*i*Includes 28,547.06 expended in 1911 after Lindsay and Bernard valuation.

*j*Includes 10,601.94 expended in 1911 after Lindsay and Bernard valuation.

*k*Figures supplied by Mr. B. B. Owens, Supervisor of School Buildings; the same being estimated.

SCHEDULE B—XVII.

Fire Department Property—(a) Engine Houses.

No.	Acquired.	Location.	Size of Lot. (Feet.)	Building.	Lot.	Ground Rent.	Lindsay and Bernard Valuation, 1911.
		Engine Companies:					
1	1907	Paca and Mulberry streets	140 x 41⅓	$44,997 01	$14,506 90	.....	$49,787 00
2	1859	Barre street, near Sharp	92 x 25	10,000 00	1,400 00	$62 50	4,688 00
3	1859	Lombard street, near High	100 x 23	8,000 00	3,333 33	150 00	3,090 00
4	1859	Lexington street, near North	120x21-9½	13,000 00	1,924 16	.....	14,335 00
5	1859	Ann street, near Lombard	140 x 34	15,000 00	8,314 00	.....	9,030 00
6	1859	Gay and Ensor streets	107-2 x 48-8	22,000 00	10,000 00	62 00	12,129 00
7	1859	Eutaw street and Druid Hill avenue	33 x 57	13,000 00	3,500 00	27 00	17,825 00
8	1871	Mulberry street, near Schroeder	120 x 23	10,000 00	2,350 00	.....	6,920 00
9	1872	Madison street, near Broadway	150 x 33	12,000 00	2,040 00	.....	8,485 00
10	1872	Columbia avenue, near Poppleton street	100 x 22	12,000 00	1,173 33	.....	7,880 00
11	1874	Eastern and Patterson Park avenues	64 x 28	12,000 00	.....	123 75	6,097 00
12	1875	Fort and Riverside avenues	125 x 25	12,000 00	.....	150 09	4,750 00
13	1876	Myrtle and Fremont avenues	192-6x180x68	19,463 00	2,500 00	.....	15,887 00
14	1888	Hollins street, near Monroe	62-5¼x130-3½	14,000 00	3,000 00	.....	15,500 00
15	1890	Lombard street, near Howard	170 x 33	20,000 00	10,000 00	.....	27,900 00
16	1909	Foot of President street	.....	35,000 00	.....	.....	35,000 00
17	1895	Fort avenue and Haubert street	51-8 x 97	13,000 00	2,150 00	.....	17,583 00
18	1892	Twenty-first street, near Maryland avenue	140 x 36	13,600 00	3,400 00	.....	16,440 00
19	1895	North avenue and Bond street	120 x 40	16,000 00	4,000 00	.....	22,600 00
20	1896	North avenue and Tenth street	110 x 60	16,059 00	1,500 00	.....	22,000 00
21	1897	Roland avenue and Oliver Place	90 x 50	15,000 00	2,500 00	.....	20,000 00
22	1901	Patuxent and O'Donnell streets	120 x 60	21,846 00	3,000 00	.....	31,000 00
23	1902	Saratoga street, near Howard	80 x 50	22,354 75	23,145 25	.....	40,000 00
24	1903	Patterson Park avenue and Orleans street	85 x 25	16,500 00	3,500 00	.....	20,000 00
25	1903	Gold and McCulloh streets	37½x120	31,136 13	3,020 00	.....	37,812 00
26	1905	Leadenhall and West streets	40 x100	20,065 16	2,434 84	.....	21,600 00

27	1905	Columbia ave., near Little Greene street...	168-5½x 46	17,900 00	8,100 00	.....	21,600 00
28	1906	Guilford and Mt. Royal avenues.....	15x115.9x147.1	23,526 25	8,473 75	.....	27,500 00
29	1906	Park Heights and Kate avenues.....	60.3 x125	28,077 93	2,083 10	.....	29,910 00
30	1907	Frederick avenue, near B. & P. R. R.....	72 x150 63.6x147.5	28,901 05	4,388 75	.....	31,100 00
31	1901	York road above Thirty-first street.....	50 x 150	17,677 33	1,737 23	75 00*	21,625 00
32	1907	South Gay street, near Baltimore.....	122½x 66	29,671 57	29,893 43	.....	52,100 00
33	1904	Harford avenue and Oliver street.....	34-3¼x94x90x 98-11	28,098 96	4,576 01	.....	31,460 00
34	1908	Caroline street, near Gough.....	37-7x100	24,951 98	5,048 02	.....	24,379 00
36	1909	Edmondson avenue and Bentalou street...	50 x187	27,791 42	3,043 75	.....	28,000 00
37	1909	Ridgely and West streets.....	50 x155	24,040 38	3,800 72	.....	27,500 00
38	1909	Baltimore and Fremont streets.....	45-7x153-2	23,936 30	11,063 70	.....	30,698 00
	1909	Pipe Line System, South street.....	69-3½x137	145,850 16‡	28,759 25	.....	§774,609 41
		Hook and Ladder Companies:					
1	1907	See No. 32 Engine Company.....	.....	.....	.....	.....	.....
2	1859	Paca and Fayette streets.....	150 x 33	26,715 08	5,000 00	105 00*	25,325 00
3	1859	See No. 5 Engine Company.....	.....	.....	.....	.....	.....
4	1907	McCulloh street, near Biddle.....	100 x 42	24,935 00	7,265 00	.....	26,600 00
5	1904	See No. 33 Engine Company.....	.....	.....	.....	.....	.....
6	1888	Hanover and Ostend streets.....	133 x 25	12,000 00	2,000 00	.....	14,750 00
7	1901	See No. 31 Engine Company.....	.....	.....	.....	.....	.....
8	1907	See No. 30 Engine Company.....	.....	.....	.....	.....	.....
9	1897	See No. 21 Engine Company.....	.....	.....	.....	.....	.....
10	1895	Lafayette avenue, near Stricker street.....	145 x50-1	14,000 00	5,000 00	.....	18,756 00
11	1898	North avenue and McMechen street.....	130x111x172	26,500 00	8,000 00	.....	38,450 00
12	1905	Liberty road and Garrison avenue.....	100 x 52	21,330 66	1,579 00	.....	22,060 00
13	1906	Carey street, near Hollins.....	80 x 41	24,156 69	5,234 99	.....	25,140 00
14	1909	Gorsuch avenue, near Harford road.....	90 x 55	26,746 40	3,395 12	.....	11,925 00
15	1907	Montford avenue and Mura street.....	100 x 30	20,859 74	3,003 63	.....	21,200 00
16	1908	Calvert and Read streets.....	40 x165	38,534 12	8,081 45	.....	31,000 00
17	1901	See No. 22 Engine Company.....	.....	.....	.....	.....	.....

Fire Department Property—(a) Engine Houses.

No.	Acquired.	Location.	Size of Lot. (Feet.)	Cost. Building.	Cost. Lot.	Ground Rent.	Lindsay & Bernard Valuation, 1911.
		Vacant:					
	1859	Harrison street, near Fayette	106 x 25	$10,000 00	$2,000 00	$100 00	$500 00
	1880	Biddle street, near Druid Hill avenue	150 x30	10,000 00	9,560 00	.....	6,800 00
	1888	Mary street, near Retreat	20 x 75	3,000 00	1,800 00	72 00	400 00
	1888	Belair road, near B. & O. crossing	110 x 40	5,000 00	1,900 00	40 00	1,800 00
	1900	Brunswick street, near Frederick avenue	85 x 41	3,000 00	4,125 00	61 50	2,000 00
	1911	Light and Montgomery streets	32 x100	.....	7,706 65	.....	7,706 65
	1911	Fulton avenue and Baker street	37½ x142-3	.....	7,197 50	.....	7,197 50
		Cost of buildings	.....	$1,735,222 07	$310,047 86	$1,028 75	$1,850,429 56
		Cost of lots	.....	310,047 86			
		Total cost of lots and buildings	.....	$2,045,669 93			

*Owned by Commissioners of Finance and deducted in Lindsay and Bernard valuation and listed as assets of Sinking Fund in Schedule B—XXI.

†Lot and building.

‡Represents cost of Pipe Line Station and System, exclusive of cost of lot to December 31, 1911.

§Represents total cost of Pipe Line System to December 31, 1911.

(a) Does not include fire engines, fire boats, equipments, etc.

SCHEDULE B—XVIII.

Public Parks and Squares.

December 31, 1911.

Parks and Squares.	Acquired.	Acreage.	Ground Rent.	Cost.	Lindsay & Bernard. Valuation. 1911.
Mt. Vernon Squares (2)	1815	1.4	.....	Donated.	Not valued†
Washington Place Squares (2)	1815	.9	.....	Donated.	Not valued†
Eastern City Spring Square	1818	1.3	.....	$15,000 00	$15,750 00
Patterson Park	1827	128.44	.....	465,157 29	513,760 00
Franklin Square	1839	2.3	.....	10,000 00	45,067 00
Jackson Square	1844	.6	.....	Donated.	Not valued†
Union Square	1847	2.0	.....	Donated.	33,800 00
Broadway Squares (19)	1851	5.7	.....	28,661 48	Not valued†
Ashland Square	1851	.01	.....	200 00	Not valued†
Madison Square	1853	3.4	.....	30,000 00	35,000 00
Eutaw Place Squares (9)	1853	5.6	.....	60,000 00	Not valued†
Lafayette Square	1859	2.9	.....	15,000 00	49,500 00
Druid Hill Park	1860	674.16	.....	720,760 53	3,360,000 00‡
Park Place Squares ((5)	1860	1.7	.....	Donated.	Not Valued.*a*
Riverside Park	1862	17.2	$3,770.62*		13,235 00
Fulton Avenue Squares (17)	1866	4.0	.....	Donated.	Not valued†
Harlem Park	1869	9.05	.....	Donated.	110,700 00
Wilkens Avenue Squares (7)	1870	1.6	.....	30,000 00	Not valued†
Perkins Spring Square	1873	1.5	2,052.00*		¶
Mt. Royal Squares (7)	1874	2.0	.....	9,790 28	Not valued†

SCHEDULE B—XVIII.—*Continued.*

Public Parks and Squares.

December 31, 1911.

Parks and Squares.	Acquired.	Acreage.	Ground Rent.	Cost.	Lindsay & Bernard Valuation, 1911.
Johnson Square	1877	2.5	.....	$20,000 00	$24,000 00
Federal Hill Park	1879	8.2	$37.50	91,135 46	64,662 00
Collington Square	1880	5.0	960.00*		32,000 00
Liberty Triangle	1880	.02	.....	Donated.	Not valued†
Taney Place Squares (2)	1881	.8	.....	Donated.	Not valued†
Mt. Royal Terraces (3)	1884	2.0	.....	44,677 58	77,500 00
Carroll Park	1890	176.74	.....	307,229 42	618,590 00
Bolton Park (Mt. Royal Station)	1891	3.52	.....	103,433 00	160,000 00
Frick Triangle	1892	.05	.....	Donated.	Not valued†
Brewer Square	1892	.39	.....	Donated.	Not valued†
Bo-Lin Square	1893	.23	.....	Donated.	Not valued†
Maple Place	1893	.07	.....	Donated.	Not valued†
Clifton Park	1895	267.26	.....	754,125 81	666,000 00
Linden Avenue Triangle	1895	.01	.....	Donated.	Not valued†
Green Spring Avenue	1896	25.5	.....	Donated.	Not valued†
Callow Triangle	1898	.03	.....	Donated.	Not valued†
Gwynn's Falls Park	1902	374.19	.....	274,649 85	261,933 00
Latrobe Park	1902	13.80	.....	40,590 00	48,300 00
Swann Park	1902	11.31	.....	39,474 52	45,240 00
Wyman Park	1903	198.39	.....	122,604 12	238,068 00
Fifth Regiment Armory	1904	.25	.....	Donated.	Not valued†

City College Lot	1904	.14	.....	Donated.	Not valued†
Riggs Triangle	1905	.02	.....	456 00	Not valued†
Venable Park	1907	60.81	.....	67,726 00	48,648 00
Ashburton Park and Reservoir	1907	92.65	.....	36,052 40	36,855 00b
Herring Run Park	1908	164.61	.....	109,111 96	92,400 00
Charles Street Boulevard	1908	2.28	.....	23,823 51	Not valued†
Philadelphia Road Triangle	1910	1.0	.....	26,737 52	13,200 00
Easterwood Park	1911	7.52	.....	23,500 00	23,500 00a
Mondawmin Squares (4)	1911	.26	.....	Donated.	†
Totals	.....	$2,285.31	$6,820.12	$3,469,896 73	$6,627,708 00

*Owned by Commissioners of Finance and deducted in Lindsay and Bernard Valuation and listed as Asset of Sinking Fund in Schedule B—XXI.

†Treated as part of street.

‡Lindsay and Bernard figured on continuing the lakes as part of the water system, and deducted acreage of lakes, leaving 560 acres available at $6,000.00 per acre.

¶After deducting the ground rent at 4 per cent. the leasehold would have no value.

(a) Acquired after Lindsay and Bernard valuation and cost price shown as value.

(b) Reservoir acreage of 40 acres deducted.

SCHEDULE B—XIX.

Police Station Houses.

Station Houses.	Ground Rent.	Lot.	Building.	Lindsay and Bernard Valuation, 1911.
Eastern:				
Bank and Bethel streets, 68 by 100 feet	.....	.....	$15,302 66	$12,720 00
Central:				
Saratoga, near Charles street, 66 by 193 feet	$600 00	$16,000 00	20,000 00	22,900 00
Northeastern:				
Ashland avenue and Durham street, 57½ by 37 feet	.....	3,675 00	32,999 00	17,110 00
Western:				
Pine street and Pin alley, 59.8 by 140 feet	.....	7,000 00	42,909 70	37,987 00
Northern:				
Cedar avenue and Second avenue, 155 by 300 feet	.....	9,307 00	88,346 09	102,750 00
Southwestern:				
Calhoun street, Pratt street, Marion alley, 55 by 157.2 feet	.....	4,000 00	41,005 36	43,300 00
Southern:				
Ostend street and Patapsco street, 70 by 110 feet	.....	5,860 00	39,364 00	42,800 00
Northwestern:				
Pennsylvania avenue and Lambert street, 46.6 by 150 feet	.....	10,000 00	38,493 41	39,650 00
Vacant:				
North street, near Lexington, 48.4 by 98 feet	120 00	17,000 00	19,783 82	24,650 00
Total	$720 00	$72,782 00	$338,204 04	$343,867 00
Cost of lots	.....	.....	72,782 00	.....
Total cost of buildings and lots	.....	.....	$410,986 04	.....

SCHEDULE B—XX.

Municipal Markets.

	Ground Rent.	Lot.	Structure.	Total.	Lindsay and Bernard Valuation. 1911
BELAIR		$35,088 33	$19,260 45	$54,348 78	$30,750 00
Forrest street, from Hillen street to 100 feet south of Low street.					
50 by 125 feet, Hillen street to Ensor street.					
56 by 150 feet, Hillen street to Ensor street.					
50 by 190 feet, Ensor street to Gay street.					
56 by 125 feet, Ensor street, to Gay street.					
50 by 265 feet, Gay street to Low street.					
50 by 100 feet, south of Low street.					
CANTON		Donated.	8,613 15	8,613 15	17,000 00
O'Donnell street, from Patuxent to Potomac street, 75 by 340 feet.					
CENTRE (New)		161,223 83	500,648 70	661,872 53	600,000 00
Market Space:					
133½ by 156⅓ by 170½ by 162¾ feet, Baltimore street to Swan street.					
153¾ by 182¼ by 214¾ by 140¼ feet, Swan street to Water street.					
283¾ by 240½ by 283¼ by 206 feet, Water street to Lombard street.					
CROSS STREET	*$974 00	8,116 67	52,022 68	60,139 35	21,100 00
515 feet, Charles street to Light street.					
63 feet, Cross street to Weyler street.					

SCHEDULE B—XX.—*Concluded.*

Municipal Markets.

	Ground Rent.	Lot.	Structure.	Total.	Lindsay and Bernard Valuation, 1911.
FELLS POINT Broadway, Canton avenue to Thames street. 50 by 265 feet, Canton avenue to Aliceanna street. 50 by 300 feet, Aliceanna street to Lancaster street. 50 by 184 feet, Lancaster street to Thames street.	.....	Donated.	$62,871 96	$62,871 96	$67,450 00
HANOVER: Hanover street, Dover street, Camden street, and Camden lane. 140 by 140 feet.	.....	$8,016 27	$25,001 43	$33,017 70	$19,600 00
HOLLIN: Hollins street, Carrollton to Arlington avenues. 40 by 340 feet.	.....	Donated.	29,871 16	29,871 16	26,500 00
LAFAYETTE Sewell street, Pennsylvania avenue to Fremont ave. 50 by 358 feet and 370 feet	.....	28,993 24	31,137 15	60,130 39	18,000 00
LEXINGTON Lexington street and Louisiana avenue. 50 by 192 feet, Eutaw street to Paca street. 50 by 290 feet, Paca to Greene street. 50 by 200 feet, Greene street to Pearl street.	*$228 00	21,800 00	56,387 13	78,187 13	140,030 00

NORTHEAST	1 200 00		19,472 93	39,472 93	160 00
Monument street, McElderry street, Chester street and Duncan street.					
123¼ by 136 feet by 123¼ by 336 feet.					
RICHMOND		71,778 73	116,402 94	188,181 67	108,000 00
Biddle street, 103 feet.					
Richmond street, 120 feet.					
Howard street, 290 feet.					
Armory avenue, 161 feet.					
Linden avenue, 300 feet.					
Total ground rents	*$2,402 00				
Cost of lots		$335,017 07			
Cost of buildings			$921,689 68		
Total cost of lots and buildings				$1,256,706 75	
Total valuation 1911					$1,048,590 00†

*Owned by Commissioners of Finance and deducted in Lindsay and Bernard valuation and listed as asset of Sinking Fund in Schedule B—XXI.

†Total depreciation on structures marked off from cost of construction, $333,472 23.

SCHEDULE B—XXI.

Ground Rents on City Property Held by Commissioners of Finance for Redemption of Loans.

The following ground rents are held by the Commissioners of Finance for the redemption of loans, and while practically these rents are extinguished, yet as the cost price of each was furnished out of the Sinking Fund, they become assets of the Sinking Fund to the extent at least of their redemption value, if not their full market value, so that Messrs. Lindsay and Bernard, in their revaluation of 1911, charged off the ground rents at market, or redemption, values, and tabulated them separately, including them among the city's assets.

Location.	Annual Rent.	Lindsay & Bernard's Valuation 1911.
City Hall	$56 00	$1,400 00
Property yard	540 00	9,000 00
Boys Latin School	549 00	9,150 00
Old City Hall	306 00	9,250 00
Baltimore City College	1,000 00	25,000 00
Colored High School	1,147 50	19,125 00
School No. 2	50 00	1,250 00
School No. 4	210 00	3,500 00
School No. 6	22 50	462 00
School No. 11	757 00	12,616 00
School No. 14	840 00	14,000 00
School No. 19	375 00	9,375 00
School No. 20	80 00	2,000 00
School No. 21	86 00	2,150 00
School No. 28	157 50	3,937 00
School No. 29	570 00	9,500 00
School No. 30	375 00	6,250 00
School No. 34	385 00	6,417 00
School No. 42	200 00	3,333 00
School No. 47	1,001 00	16,683 00
School No. 58	22 50	662 00
School No. 60	450 00	7,500 00
	1,155 00	19,250 00
School No. 67	360 00	6,000 00
School No. 68	240 00	4,000 00
School No. 76	350 00	5,833 00
School No. 77	209 25	3,487 00
School No. 78	480 00	9,500 00
School No. 91	120 00	3,000 00
School No. 92	372 50	6,208 00
School No. 93	300 00	7,500 00
School No. 94	501 75	12,543 00
School No. 96	480 00	8,000 00
School No. 110	480 00	12,000 00
School No. 111	130 00	3,250 00
School No. 112	630 00	10,500 00
School Chester street and Ashland avenue	829 75	13,829 00
School Pennsylvania avenue and Biddle street	1,500 00	25,000 00
Engine House No. 3	150 00	3,250 00
Engine House No. 31	75 00	1,875 00

SCHEDULE B—XXI.—*Continued.*

Location.	Annual Rent.	1911. Lindsay & Barnard's Valuation.
Truck No. 2	105 00	2,625 00
Brunswick avenue (vacant)	61 50	1,025 00
Riverside Park	3,770 62	94,265 00
Perkins' Spring Square	2,052 00	34,200 00
Collington Square	960 00	24,000 00
Cross Street Market	974 00	24,350 00
Lexington Market	228 00	5,700 00
Northeast Market	1,200 00	2,000 00
(a) 5 to 27 and 31 to 39 Weyler street	772 13	13,000 00
(b) Fayette and Arch streets	48 00	1,200 00
Totals	$38,042 00	$529,950 00

(a) Acquired 1883. Cost, $8,116.67.
(b) Acquired 1828. Cost, 800.00.

SCHEDULE B—XXII.

New Sewerage System.

The expenditures for account of the New Sewerage System now in course of construction to December 31, 1911, were as follows:

Salaries, engineering department	$694,545 64
Salaries, commission department	168,763 65
Rentals	34,289 27
Supplies	126,106 16
Disposal plant, real estate	205,000 00
Pumping station, real estate	121,022 83
Rights-of-way for sanitary and storm-water drains	25,703 22
Construction	7,304,812 39
Total	$8,680,243 16

SCHEDULE B—XXIII.

Free Public Baths.

No.	Location.		Cost.	
			Lot.	Building.
1	South High street, near Pratt street..	45 ft. 6 in.x106 ft. 3 in.	*	*
2	Columbia avenue and Callender alley....	40 ft.x100 ft. 8½ in.	*	*
3	Argyle avenue, near Greenwillow street	40 ft.x140 ft.	*	*
4	West and Marshall streets	42 ft. x95 ft.	*	*
5	Public Comfort Station, Greenmount ave., Harford ave. and Monument sts.	90 ft.x55 ft.	$6,020 23	.....
	Public Comfort Station, Centre Market Space Building	42 ft.x24½ ft.	Bed of street.	$15,122 52
	West Park Recreation Centre.....	.....	.....	†3,000 00
	Five Portable Bath Houses in various localities	.....	.....	3,750 00
	Winans' Beach Baths	.....	.....	1,500 00
	Gywnn's Falls Baths.	.....	.....	500 00
	Locust Point Baths..	.....	.....	500 00
	Invested in buildings and apparatus.....			$24,372 52
	Invested in lots.....			6,020 23
	Total invested.....			$30,392 75

*Donated by Mr. Henry Walters.

†Bathing apparatus and plant.

Note—These figures do not, of course, represent the true value of the Free Public Bath properties. It will be observed the ground and buildings of most of the properties were donated and the City is therefore treated as Trustee of such properties and the values of the same are not included among the City's assets.

SCHEDULE B—XXIV.

Uncollected Water Rents as of December 31, 1911.

Current water rents	$113,079 53
Delinquent water rents	4,375 21
Meter rates	3,029 00
Plumbing bills	10,138 46
Total	$130,622 20

SCHEDULE B—XXV.

The Enoch Pratt Free Library.

General Statement.

The Enoch Pratt Free Library was founded by a citizen of Baltimore, whose name it bears. On January 21, 1882, he made the city the munificent offer of a Central Library Building, and the sum of $833,333.33, "provided the city will grant and create an annuity of $50,000 per annum forever, payable quarterly to the Board of Trustees, for the support and maintenance of the Library and its branches." This offer on the part of Mr. Pratt received the thanks of the Mayor and City Council, and as a result of the action of these authorities an act was passed by the General Assembly of Maryland at its January session 1882 (Chapter 181) enabling the city to accept the donation from Mr. Pratt and providing for the appointment and incorporation of trustees for the management of the Library.

This acceptance was made by the legal voters of the City of Baltimore at an election held October 25, 1882, when they approved an ordinance of the Mayor and City Council accepting the gift.

The powers given the institution by the original charter were enlarged by Chapter 221, of the Acts of 1900, so that gifts, bequests, devises and conveyances of property could be received from any source by the Trustees, and held in a similar manner to the original gift.

The Central Building was completed in the autumn of 1884, and shortly thereafter the Hon. Lewis H. Steiner, M. D., was elected librarian, and the Library was formally opened to the public on January 4, 1886.

The total number of books now owned by the Library is 276,849. The circulation of books for home use exceeds 600,000 volumes a year, and almost 100,000 magazines are annually used in the Central Library reading-room.

The expenditures for 1911 were:

Books	$16,810 28
Periodicals	1,979 34
Binding	4,390 23
Construction and repairs	2,229 29
Stationery and supplies	2,196 93
Insurance	1,326 20
Furniture and typewriters	165 76
Amount carried forward	$29,098 03

Amount brought forward	$29,098 03
Drayage	832 00
Rent	600 02
Coal	2,446 35
Light	2,678 15
Printing	458 85
Miscellaneous	2,001 71
Salaries	38,456 47
Total	$76,571 58

At the time the Library was opened, probably no city in the United States, except Boston, was more adequately served by a public library, than Baltimore. As the years passed on however, both population and area of the City were doubled, while no additional income was received by the Library which was thus unable either to enter new fields of library work, or properly to cover the ground which it endeavored to occupy. After careful thought, Mr. Andrew Carnegie was asked to consider our needs, and generously responded by a gift in November, 1906, of a half a million dollars to be used for the construction of twenty Branch Library buildings which should be maintained by the City, with an appropriation of not less than ten per cent. of the cost of the buildings, and should be erected upon lots provided either by the municipality, or by the gift of individuals or corporations. The funds provided by Mr. Carnegie may be used for the purchase of furniture for the buildings, but are not available for the purchase of books. It was thought necessary that an amendment of the City Charter should be made in order to make certain the right of the City to accept this gift, and to make an appropriation for library purposes. This legislation was secured at the session of the General Assembly in 1908 (Laws of 1908)—Chapter 144), and in the same year an appropriation was first made by the City, and ground was broken for the first of the Branch Libraries erected from Mr. Carnegie's gift.

Number.	Location.	Dimensions of Lot.	Opened.	Number of Volumes.
Central Library,	106 W. Mulberry street	80.7 by 140 feet	1886	173,380
Annex,	404 Cathedral street	23½ by 108 feet	....	....
Branch No. 1,	Fremont avenue and Pitcher street	87 by 75 by 40 by 87 feet	1886	14,358
Branch No. 2,	Calhoun and Hollins streets	40 by 90⅓ feet	1886	13,412
Branch No. 3,	Light and Gittings streets	48 by 83.3½ feet	1886	11,093
Branch No. 4,	Ellwood and O'Donnell streets	60 by 125 feet	1886	11,011
Branch No. 5,	Broadway and Miller street	50 by 100 feet	1888	13,311
Branch No. 6,	St. Paul, near Twenty-fifth street	70 by 123 feet	1896	11,659
Branch No. 7,	Falls road, near Thirty-seventh street	50 by 135 feet	1900	7,445
Branch No. 8,	Clifton avenue and Eleventh street	160 by 96 feet	1907	3,800
Branch No. 9,	Towson and Beason streets	90 by 90 feet	1910	3,054
Branch No. 10,	Gay and Mott streets	Rented room	1902	1,590
Branch No. 11,	1119 E. Baltimore street	Rented room	1904	1,964
Branch No. 12,	Sterrett and St. Peter streets	61.1 by 58.10 by 76.3½ by 57 feet	1909	4,031
Branch No. 13,	Linwood avenue and Fayette street	86¼ by 100 by 99.3½ by 101¼ feet	1910	3,443
Branch No. 14,	Garrison and Calloway avenues	253.67 by 80.7 by 230.65 by 177.33 feet	1910	3,298
Branch No. 15,	Taylor street and Gorsuch avenue	90 by 90 feet	1911	3,500
Branch No. 16,	Fifth avenue, near Park Heights avenue	83.5½ by 185 by 175 by 75 feet	1912	3,500

Note—The City is treated as trustee of the Enoch Pratt Free Library lots, buildings, and equipment, and therefore the values are not included among the City's assets.

FROM THE REPORT OF THE
BALTIMORE AUDIT COMPANY.

BALTIMORE, MD., March 9, 1912.

To the Honorable Mayor and City Council of Baltimore.

GENTLEMEN:

We have completed our audit for the year ending December 30, 1911, embracing a thorough examination of the vouchers, the books and accounts of each and every department, the verification of all additions and extensions, and the checkings of all postings.

In the offices of the Collector of Taxes, and the Collector of Water Rents and Licenses, these two departments being the main source of revenue of the city, we verified all extensions and additions, and saw that all money received was properly accounted for and turned over to the Comptroller.

In these departments a few errors were found in the extensions and postings. Statements were rendered, and corrections were made adjusting these errors.

In sundry other departments the additions were verified, postings checked, and we found that the expenditures were in agreement with the Comptroller's books. Furthermore, trial balances were drawn from the ledgers, and all were in balance under date of December 30, 1911.

In the Comptroller's office we verified all extensions and additions; examined all the pay vouchers, and followed all receiving and pay warrants to the Register's office, and verified the trial balance under date of December 30, 1911.

In the City Register's office all receiving and pay warrants were checked with the cash book, all additions verified in said book, and the balance on hand as of December 30, 1911, was proved by counting the cash on hand, and reconciling the amounts as certified to by certificates from the depositories.

All stock issued, whether by sale or transfer, was verified by checking sales of stock to the cash book, and for all stock issued in lieu of transferred stock it was seen that the original stock certificates for the same amounts were duly cancelled. Each issue of new stock was checked to its proper ledger account.

In the Finance Commissioner's Department, all the extensions, additions and postings, together with the vouchers, were examined and verified, and the cash on hand was found to be in agreement with the balance as per certificates from the several banks. The Finance Commission had stock in the vaults of the Safe Deposit and Trust Company, under date of December 30, 1911, in trust for the various Sinking and Special Funds, as shown by the following table:

Stock on hand January 1, 1911		$16,796,394 27
Less Public Improvement 1940 Stock sold February 17, 1911, from Western Maryland Railroad Sinking Fund by order of the Finance Commissioners		13,700 00
		$16,782,694 27
Purchase of City Stock from time to time during 1911		1,478,265 70
		$18,260,959 97
Certificates of Deposit (City Stock as collateral)		4,263,000 00
		$22,523,959 97
Enoch Pratt Library Fund	$1,174,100 00	
Horwitz Benevolent Fund	20,000 00	
Frederick Raine Fund	400 00	
		1,194,500 00
		$23,718,459 97

Valley Railway, State of Virginia, 10,000 shares, no value.
Baltimore and Reisterstown Turnpike Stock, 550 shares, value, $2,062.50.
Baltimore and York Turnpike Stock, 625 shares, no value.

All of the above stock was examined by us in the presence of the Finance Commissioners on February 8, 1912.

Respectfully submitted,

BALTIMORE AUDIT COMPANY,

(Signed) CHARLES L. HEHL, *President,*
Certified Public Accountant.

Approved:

(Signed) JOHN KUCHLER, *Vice-President,*
Certified Public Accountant.

(Signed) ELMER L. HATTER, *Treasurer,*
Certified Public Accountant.

ANNUAL REPORT

OF THE

CITY COLLECTOR

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

REPORT

CITY COLLECTOR'S OFFICE,

CITY HALL,

BALTIMORE, January 1, 1912.

To the Honorable Mayor and City Council of Baltimore.

GENTLEMEN: I herewith transmit for your consideration the report of this department for the year ending December 31, 1911. This report contains the various tables relative to the collection of taxes, the sources of that collection, and the proportion that is collectible.

I would especially call your attention to Table "K," which shows the collections for the year 1911 to be $344,215 76 in excess of the estimate.

In addition to the tables usually embodied in reports of this department, I desire to call your attention to special Table "L," included herein, which has been compiled in compliance with a request of the City Council. The table in question gives the details of assessments and collections on personal property. The items differentiate between stock in trade, machinery, household furniture, office furniture, horses and vehicles, vessels and miscellaneous articles.

The main purpose of this compilation was to segregate the item of household furniture from other personal property listings. This was done in order to ascertain the relative bearing of household furniture upon the general tax problem. Inasmuch as it was proposed to exempt from taxation all household furniture to the extent of five hundred dollars in value, it was important to know just exactly what effect that exemption would have.

The table shows that the total valuation of tangible personal property is $45,209,350. Of that total the sum of $8,830,096 represents household furniture. Three million three hundred and twelve thousand four hundred and thirty-seven dollars of this represents furniture assessed under the $500 mark. There are 5,283 assessments over $500. These at the $500 exemption would make $2,641,500. Adding these two together will give a total of $5,953,937, which at the 1912 rate of $1.89 would produce $112,529,40. Or, if the city, after losses and other difficulties, were to collect but seventy per cent. of the taxes due it would produce to the city a revenue aggregating $78,770.58.

It is manifest, therefore, that the exemption of all household furniture to the extent of $500 in value means a minimum annual loss in revenue of $78,770. The probabilities are that the actual loss would be substantially larger. There is no question, however, that the annual loss will not be less thah $78,770.

That means three cents on the tax rate. In other words, this exemption would necessitate the addition of three cents to our tax rate in order to balance the loss of revenue which the exemption would cause.

Reference to the table will show the details.

Respectfully,

JACOB W. HOOK,
City Collector.

TABLES

TABLE A.

Total City and State Taxes, including the Rural, Suburban and Annex, Received from January 1, 1911, to December 31, 1911.

	City.	State.	Total.	Rural, Suburban and Annex.		
				City.	State.	Total.
January	$4,376,370 52	$550,253 53	$4,926,624 05	$126,945 08	$29,720 86	$156,665 94
February	528,473 03	48,230 88	576,703 91	31,516 29	7,304 51	38,820 80
March	533,802 72	40,009 35	573,812 07	18,852 76	4,336 57	23,189 33
April	594,554 26	39,032 11	633,586 37	15,250 52	3,718 36	18,968 88
May	445,911 95	44,530 57	490,442 52	24,916 43	5,407 27	30,323 70
June	538,691 14	48,722 98	587,414 12	35,694 79	7,642 55	43,337 34
July	643,756 57	70,625 97	714,382 54	39,864 45	9,525 46	49,389 91
August	155,370 26	52,527 16	207,897 42	8,777 67	3,222 42	12,000 09
September	137,839 61	14,206 62	152,046 23	8,491 51	2,055 92	10,547 43
October	152,722 12	14,185 92	166,908 04	8,900 50	1,968 39	10,868 89
November	123,545 58	20,882 49	144,428 07	8,135 03	1,742 54	9,877 57
December	213,974 65	18,547 80	232,522 45	9,633 67	2,260 49	11,894 16
Total	$8,445,012 41	$961,755 38	$9,406,767 79	$336,978 70	$78,905 34	$415,884 04

City, including Streets and Mortgages	$8,445,012 41	State (City Proper)	$961,755 38
Rural, Suburban and Annex	336,978 70	State, Rural, Suburban and Annex	78,905 34
Total	$8,781,991 11	Total	$1,040,660 72

City	$8,781,991 11
State	1,040,660 72
Total	$9,822,651 83

TABLE B.

Recapitulation of Taxes Collected from January 1, 1911, to December 31, 1911.

	Basis.	Rate.	Tax.	Discount.	Net Tax.	Interest.	Total.
1899—Personal	$500	$1 98	$9 90		$9 90	$6 95	$16 85
1900—Personal	500	1 67	8 35		8 35	5 88	14 23
1901—Personal	3,965	1 81½	71 97		71 97	44 68	116 65
1902—Personal	5,340	1 95	104 12		104 12	57 37	161 49
1903—Real	28,633	1 86¾	534 74		534 74	249 81	784 55
Personal	4,995		93 30		93 30	44 88	138 18
Securities	10,853	30	32 56		32 56	15 98	48 54
1904—Real	38,633	2 06	795 84		795 84	352 65	1,148 49
Personal	507,505		10,456 47		10,456 47	3,750 01	14,206 48
Securities	9,643	30	28 93		28 93	12 44	41 37
1905—Real	225,793	2 11½	4,775 51		4,775 51	1,628 92	6,404 43
Personal	518,957		10,975 98		10,975 98	3,348 75	14,324 73
Securities	15,143	30	45 43		45 43	16 31	61 74
1906—Real	227,188	2 00	4,543 76		4,543 76	1,275 66	5,819 42
Personal	445,642		8,912 84		8,912 84	2,707 13	11,619 97
Securities	15,143	30	45 43		45 43	13 59	59 02
1907—Real	281,371	1 97½	5,557 09		5,557 09	274 54	5,831 63
Personal	496,431		9,804 54		9,804 54	2,317 95	12,122 49
Securities	97,091	30	291 28		291 28	63 33	354 61
1908—Real	896,844	2 00	17,936 88		17,936 88	2,347 41	20,284 29
Personal	1,251,161		25,223 22		25,223 22	3,664 45	28,887 67
Securities	614,317	30	1,842 94		1,842 94	353 24	2,196 18
1909—Real	13,668,500	1 95	266,535 76		266,535 76	30,057 26	296,593 02
Personal	2,117,265		41,286 71		41,286 71	4,071 47	45,358 18
Securities	768,139	30	2,304 68		2,304 68	295 58	2,600 26
1910—Real	25,699,506	1 99	511,459 51		511,459 51	25,724 20	537,183 71
Personal	4,099,035		81,570 84		81,570 84	5,108 59	86,679 43
Securities	1,790,185	30	5,370 56		5,370 56	356 99	5,727 55
1911—Real	273,640,280	1 98	5,418,077 65	$93,855 57	5,324,222 08	5,700 11	5,329,922 19
Personal	67,240,443		1,331,360 72	20,033 95	1,311,326 77	924 15	1,312,250 92
Securities	165,130,764	30	495,392 29	11,903 40	483,488 89	95 95	483,584 84
Savings Banks	88,050,533	18¾	165,094 74	4,104 22	160,990 52		160,990 52
Total	$647,910,388		$8,420,544 54	$129,897 14	$8,290,647 40	$94,886 23	$8,385,533 63

Opening streets and alleys	50,298 63
Paving streets and alleys	8,912 27
Mortgages	267 88
Total	$8,445,012 41

NOTE—The discount allowed by the Mayor and City Council for the prompt payment of taxes on the levy of 1911 on Real and Personal, according to the above table was $113,889.52, which is equivalent to the taxes on a basis of $5,751,996, and this amount deducted from the gross basis of $340,880,723 leaves a net basis collected upon of $335,128,727 (see Table G).

TABLE C.

Rate Per One Hundred Dollars.

	1907.	1908.	1909.	1910.	1911.
Police Department	37¼	34 11/16	35 1/16	34 5/8	33 [illegible]
Certain Expenses	6½	6 5/16	6 1/16	6 3/32	6 [illegible]
Public Schools	36 9/16	35 3/16	34 9/16	42¼	34½
City Poor	18 1/8	18 1/16	22 1/16	21 5/8	19 [illegible]
City Direct	47 9/16	45 10/16	37 13/16	31 7/32	45 [illegible]
Interest on Stock Debt	33¾	35 5/16	37½	41 5/8	34 [illegible]
Water 1926 Sinking Fund	1	1	1	1	1
Internal Improvements 1928 Sinking Fund	3	3	3	3	3
General Sinking Fund	1¾	1¾	1¾	1¾	1¾
Public Improvement 1940 Sinking Fund	2	2	2	2	2
Four Million Loan Sinking Fund	½	½	½	½	½
Water 1916 Sinking Fund	2	2	2	2	2
Water 1922 Sinking Fund	½	½	½	½	½
Funding 1936 Sinking Fund	1	1	1	1	1
Conduit 1922 Sinking Fund	1	1	1	1	1
Refunding 1940 Sinking Fund	2	2	2	2	2
Conduit 1928 Sinking Fund	1	1	1	1	1
Burnt District Improvement 1954 Sinking Fund	2	2	2	2	2
Annex, 1954; Fire Engine, 1957; School House, 1957; Conduit, 1958; and Sewerage, 1980; Sinking Funds		6 7/16	3 5/8	3 26/32	4 [illegible]
	$1.97½	$2.00	$1.95	$1.99	$1.98

TABLE D.

Monthly Receipts of Taxes from January 1, 1911, to December 31, 1911, on Several Levies from 1899 to 1911, inclusive, for Opening and Paving Streets and Alleys, Securities, Savings Banks and Mortgages

Months.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	Savings Banks	Opening Streets and Alleys.	Paving Streets and Alleys.	Securities.	Mortgages.	Total.
January					$13 64	$24 93	$116 47	$115 45	$294 94	$2,272 05	$25,897 56	$77,865 66	$3,654,758 66	$158,765 50	$653 50	$1,161 51	$454,430 63	.....	$4,376,370 52
February					39 53	13 61	4 27	41 55	138 57	1,545 89	20,656 53	74,225 59	422,196 58	1,631 55	314 19	848 26	6,816 91		528,473 03
March						12,433 23	18,418 82	16,651 95	13,592 24	9,653 33	36,728 62	72,154 46	343,414 88		1,037 35	403 98	6,313 86		833,802 72
April			$6 46	$6 68	683 99	14 58	24 18	151 48	25 09	507 04	23,456 32	39,272 38	517,058 04		3,053 16	1,294 11	8,996 47	$4 28	594,554 26
May			25 84	26 71	8 29	.....	.....	.....	.....	1,537 29	57,487 62	77,077 28	287,451 89		16,790 56	587 05	4,919 42		445,911 95
June			23 35	28 43	44 77	138 61	240 42	2,884 46	12,102 48	45,884 63	84,110 64	384,866 39			4,846 00	692 10	2,365 26	263 60	538,691 14
July					5 61	1,624 24	5 80	32 75	160 81	3,134 34	30,734 08	47,004 98	555,118 31	106 63	2,168 61	594 09	3,066 32		643,756 57
August			10 30	10 61	110 35	122 90	120 88	117 31	262 81	5,366 83	11 773 17	18,901 62	116,158 32	486 84	804 75	270 36	883 21		155,370 26
September					18 92	20 01	78 05	8 55	282 81	5,352 85	21,965 51	29,827 00	77,487 87		1,775 44	94 78	927 82		137,839 61
October							1,764 53	10 58	66 35	3,384 83	30,663 44	24,193 22	83,103 70		7,087 22	912 68	1,838 57		152,722 12
November			44 23	63 48	.....	.....	14 71	26 60	180 60	603 43	26,255 80	30,140 60	62,582 85		1,368 50	560 69	1,704 09		123,545 58
December	$16 85	$14 23	29 82	30 66	13 97	1,056 70	42 84	42 75	65 44	3,711 60	10,447 92	49,089 71	137,975 62		7,399 35	1,492 66	2,544 53		213,974 65
Total	$16 85	$14 23	$116 65	$161 49	$922 73	$15,354 97	$20,729 16	$17,439 39	$17,954 12	$49,171 96	$341,951 20	$623,863 14	$6,642,173 11	$160,990 52	$50,298 63	$8,912 27	$491,671 11	$267 88	$8,445,012 41

TABLE E.

Showing the Respective Percentages of Current City Taxes Collected on the Several Classes of Property.

	Basis.	Basis Collected Upon.	Per Cent. Gross.	Per Cent. Net.
Real (full rate), $1.98 per Hundred	$318,309,073	$273,640,280	85.9	84.5
Real Suburban, $1.30 per Hundred	13,240,595	9,922,900	74.9	73.9
Real Rural, 66c. per Hundred	29,681,690	22,566,245	76.0	74.9
Tangible Personal of Individuals, Firms and Foreign Corporations (full rate)	40,378,314	28,771,650	71.0	69.5
Shares of National Banks and Maryland Corporations, net Assessment (full rate)	40,092,774	38,468,793	95.7	93.2
Securities, 30c. per Hundred	172,200,249	165,130,764	95.9	93.6
Savings Banks (Deposits), 18¾c. per Hundred	88,099,719	88,050,533	98.9	96.4

TABLE F.

Showing the Percentage Collected Upon During the Current Year of the Respective Levies, Including Securities and Savings Bank Deposits, from 1902 to 1911, Inclusive

Year.	Basis.	Basis Collected.	Per Cent.
1902	$413,379,062	$357,942,351	86.58
1903	408,049,102	352,837,058	86.47
1904	467,618,015	412,039,243	88.11
1905	491,521,174	425,837,622	84.60
1906	551,695,818	469,513,865	85.10
1907	611,320,038	512,804,094	83.87
1908	631,675,082	517,711,073	81.96
1909	614,076,898	545,142,870	88.77
1910	654,940,025	570,693,925	87.14
1911	659,073,817	594,062,020	90.13

TABLE G.

Showing the Percentage Collected Monthly on Real and Personal Property Levy of 1911 to December 31, 1911.

Real and Personal Basis, December 31, 1911.	Months.	Basis Collected Upon.	Per Cent.	
$398,773,849	January	$189,317,214	47.4	
	February ..	21,758,301	05.4	
	March	17,608,263	04.4	
	April.....	26,378,263	06.6	
	May..	14,572,276	03.7	
	June.....	19,432,377	04.9	
	July	28,030,527	07.0	
	August.....	5,847,827	01.4	
	September..	3,872,624	00.9	
	October.....	4,140,904	01.1	
	November ..	3,097,857	00.9	
	December...	6,824,290	01.7	
		$340,880,723	85 4	Gross.
Discounts.....		5,751,996	01 4	
Net basis collected upon.....		$335,128,727	84.0	Net.
Real and Personal basis estimated upon by Board of Estimates.....		$404,687,336		
Real and Personal basis collected upon..		340,880,723	84.3	Gross.
		335,128,727	82.9	Net.

Property Subject to Full Rate.	Basis.	Basis Collected Upon.	Per Cent. Gross.	Per Cent. Net.
Real.....	$318,302,761	$273,640,280	85.9	84.5
Tangible Personal (Individuals, Firms and Foreign Companies).....	40,378,314	28,771,650	71.0	69.5
Shares of National Banks and Maryland Incorporated Companies (Net Assessments).....	40,092,774	38,468,793	95.7	93.2
	$398,773,849	$340,880,723		

TABLE H.

Summary of Receipts for Opening and Closing Streets and Alleys from January 1, 1911, to December 31, 1911.

Bentalou Street	$9,582 13
Callow Avenue	734 51
Dukeland Avenue	1,086 00
Fortieth Street	7,369 20
Friendsbury Place	197 50
Garrett Avenue	246 00
German Street	85 20
Hudson Alley	600 00
Huntingdon Avenue	4 00
Keyworth Street	805 00
Light Street	4,519 22
Lombard Street	684 96
Montebello Avenue	2,596 75
Pratt Street	5,601 80
Rose Street	2,400 00
Saratoga Street	5,486 00
Smallwood Street	349 25
Thirtieth Street	1,770 19
Thirty-fourth Street	2,306 35
Twenty-second Street	3,874 57
	$50,298 63

TABLE I.

Summary of Receipts for Paving Streets and Alleys from January 1, 1911, to December 31, 1911.

Alleys	$2,465 45
Carroll Street	887 89
Catherine Street	547 13
Courtland Street	395 24
Footways	654 11
Fox Street	641 36
Hargrove Alley	616 49
Hunters Alley	617 03
Lombard Street	993 36
McHenry Street	326 25
Massachusetts Avenue	328 59
Millington Avenue	398 49
Trenton Street	40 88
	$8,912 27

TABLE J.

Shows the Total Amount Collected, the Total Basis Collected Upon During the Year 1911 on Taxes in Arrears and on Levy of 1911, in Comparison with the Same for the Year 1910.

The total amounts collected in 1911 were:

On Taxes in Arrears	$53,848,368	$1,098,785 16
On Levy of 1911 Real and Personal	340,880,723	6,642,173 11
On Levy of 1911 Securities	165,130,764	483,584 84
On Levy of 1911 Savings Banks	88,050,533	160,990 52
Total	$647,910,388	$8,385,533 63

The total amounts collected in 1910 were:

On Taxes in Arrears	$58,532,586	$1,144,491 38
On Levy of 1910 Real and Personal	330,023,260	6,460,999 16
On Levy of 1910 Securities	157,214,949	460,737 70
On Levy of 1910 Savings Banks	83,454,619	152,595 27
Total	$629,225,414	$8,218,823 51

SUMMARY.

1911 Taxes in Arrears	$53,848,368	$1,098,785 16
1910 Taxes in Arrears	58,532,586	1,144,491 38
1911 Levy of 1911 Real and Personal	340,880,723	6,642,173 11
1910 Levy of 1910 Real and Personal	330,023,260	6,460,999 16
1911 Levy of 1911 Securities	165,130,764	483,584 84
1910 Levy of 1910 Securities	157,214,949	460,737 70
1911 Levy of 1911 Savings Banks	88,050,533	160,990 52
1910 Levy of 1910 Savings Banks	83,454,619	152,595 27

TABLE K.

Showing the Total Collection Made During the Year 1911, in Comparison with Estimates as Made by the Board of Estimates.

	Collected.	Estimate.	Deficiency.	Excess.
Current ($1.98 Rate)	$6,642,173 11	$6,530,436 00	.....	$111,737 11
Suburban ($1.30 Rate)	153,888 50	135,215 36	.....	18,673 14
Rural (60c Rate)	181,899 88	152,335 44	.....	29,564 44
Arrears (City and Annex). (All Rates)	1,088,886 21	915,000 00	.....	173,886 21
Securities	494,674 11	487,552 65	.....	7,121 46
Savings Banks.	160,990 52	158,025 00	.....	2,965 52
Mortgages	267 88	.....	.....	267 88
Total	$8,722,780 21	$8,378,564 45	.....	$344,215 76

SUMMARY.

Collected	$8,722,780 21
Estimated	8,378,564 45
Amount Collected over Estimate	$344,215 76
Excess	$344,215 76
Deficiency	.....
Amount Collected over Estimate	.....

TABLE "L"—*Special.*

Showing Tangible Personal Assessments for the Year 1912, and the Amount of Revenue That Would be Received from Each of These Classes of Property if all the Taxes Thereon for 1912 Were Paid in Full.

	Basis.	At 1912 Rate of	Revenue if Collected in Full.
Stock in trade	$25,552,825	$1.89 per $100	$482,948 39
Machinery	5,432,769	1.89 per 100	102,679 34
Household Furniture	8,830,096	1,89 per 100	166,888 81
Office Furniture	152,048	1.89 per 100	2,873 70
Horses and Vehicles	1,070,774	1.89 per 100	20,237 63
Autos	1,579,340	1.89 per 100	29,849 53
Vessels	944,526	1.89 per 100	17,851 55
Miscellaneous	1,646,972	1.89 per 100	31,127 77
Total	$45,209,350		$854,456 72

TABLE A.

Rural, Suburban and Annex.

The collections during the year 1911 were $336,978.70, as follows:

Levy of 1908 Annex	$1,190 32
Levy of 1909 Rural	12,392 47
Levy of 1909 Suburban	7,340 58
Levy of 1910 Rural	22,534 27
Levy of 1910 Suburban	19,133 18
Levy of 1911 Rural	146,973 14
Levy of 1911 Suburban	127,414 74
Total	$336,978 70

The basis collected upon were:

Levy of 1908 Annex	$168,758
Levy of 1909 Rural	1,714,308
Levy of 1909 Suburban	507,471
Levy of 1910 Rural	3,227,652
Levy of 1910 Suburban	1,398,220
Levy of 1911 Rural	22,566,245
Levy of 1911 Suburban	9,922,900
Total	$39,505,554

The amount of State taxes collected were:

Levy of 1908 Annex	$312 07
Levy of 1909 Rural	2,926 87
Levy of 1909 Suburban	850 75
Levy of 1910 Rural	5,308 37
Levy of 1910 Suburban	2,290 10
Levy of 1911 Rural	46,466 56
Levy of 1911 Suburban	20,750 62
Total	$78,905 34

Total City	$336,978 70
Total State	78,905 34
	$415,884 04

TABLE B.

RURAL, SUBURBAN AND ANNEX.

Recapitulation of Taxes Collected from January 1, 1911, to December 31, 1911.

	Basis.	Rate.	Tax.	Discount.	Net Tax.	Interest.	Total.
1908.							
Real Annex	$168,758	60	$1,012 55	.....	$1,012 55	$177 77	$1 190 32
1909.							
Real Rural	1,714,308	65	11,143 03	.....	11,143 03	1,249 44	12,392 47
1909.							
Real Suburban	507,471	$1 30	6,597 11	.....	6,597 11	743 47	7,340 58
1910.							
Real Rural	3,227,652	66⅔	21,410 09	.....	21,410 09	1,124 18	22,534 27
1910.							
Real Suburban	1,398,220	$1 30	18,176 88	.....	18,176 88	956 30	19,133 18
1911.							
Real Rural	22,566,245	66	148,937 21	$2,189 63	146,747 58	225 56	146,973 14
1911.							
Real Suburban	9,922,900	$1 30	128,997 71	1,824 52	127,173 19	241 55	127,414 74
Total	$39,505,554		$336,274 58	$4,014 15	$332,260 43	$4,718 27	$336,978 70

ANNUAL REPORT

OF THE

VISITORS TO THE CITY JAIL

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

OFFICERS

OF THE

BALTIMORE CITY JAIL, 1911

BOARD OF VISITORS

MOSES N. FRANK
WALTER L. ALEXANDER
JAMES A. McQUADE
FREDERICK W. ECKELS
JOHN T. FORD
JOHN T. RADFORD
HENRY P. HOFFMAN
CHARLES A IRWIN
GEORGE M. HENDERSON

PRESIDENT OF THE BOARD
MOSES N. FRANK

SECRETARY OF THE BOARD
WALTER L. ALEXANDER

WARDEN
CHARLES A. HOOK

PHYSICIAN
GEORGE L. WILKINS

CLERK
HARRY C. MARTIN

STANDING COMMITTEES

ACCOUNTS
GEORGE M. HENDERSON, Chairman
JAMES A. McQUADE
HENRY P. HOFFMAN

REPAIRS
JOHN T. RADFORD, Chairman
CHARLES A. IRWIN
WALTER L. ALEXANDER

DISCIPLINE AND SANITATION
JAMES A. McQUADE, Chairman
JOHN T. RADFORD
CHARLES A. IRWIN

COMMITTEE ON ANNEX
FREDERICK W. ECKELS, Chairman
GEORGE M. HENDERSON
JOHN T. FORD

SUPPLIES
JOHN T. FORD, Chairman
FREDERICK W. ECKELS
MOSES N. FRANK

BOARD'S REPORT.

BALTIMORE, January 1, 1912.

To the Honorable Mayor and City Council of Baltimore:

GENTLEMEN—As required by the City Charter, it is our duty, as well as our pleasure, to submit to you an annual report as to the condition of the Baltimore City Jail.

With the completion of the new additions to the Jail, thereby adding two hundred and eighty reinforced concrete cells equipped with necessary toilet accommodations, etc., the addition of a new bathroom for the female department; the installation of five new telephones with underground system of wiring, and with the contemplated improvements to be made this summer, consisting of the tearing down and removal of the old shop buildings and steam vat in the yard; the removal of the kitchen, storeroom and bakery to the first floor of the new shop building, and the occupancy of the second story as the prisoners' dining room, thereby eliminating the present unsanitary condition of the prisoners eating in the corridor opposite their cells, we feel that this institution will be equal to any of its kind in the country.

We especially call your attention to that portion of the Warden's report regarding habitual prisoners, both male and female. This class of prisoners is continually coming in and going out of the City Jail, which seems to be a sort of clearing house for them.

We recommend that the laws be changed so that such continual violators of the law should receive longer sentences, thereby ridding the community of them for the time being,

and saving time and expense in continually hauling them back and forth from station houses and courts.

The discipline of the Jail during the year has been up to its usual high standard. The Board takes pleasure in calling your attention to the complete reports of its executive officers, showing the workings of the Jail for 1911, and compliments them upon their excellent work during the year.

In conclusion, we desire to refer to the excellent work done by the Prisoners' Aid Association during the year, and to express our admiration for the good people who are so earnestly endeavoring to improve the moral and spiritual tone of our inmates.

Respectfully submitted,

Moses N. Frank, *President,*
Walter L. Alexander, *Secretary,*
John T. Ford,
George M. Henderson,
Frederick W. Eckles,
Charles A. Irwin,
John T. Radford,
H. P. Hoffman,
James A. McQuade,

Board of Visitors.

WARDEN'S ANNUAL REPORT.

FOR THE

YEAR ENDING DECEMBER 31, 1911.

BALTIMORE, January 1, 1912.

To the Honorable Board of Visitors to the Baltimore City Jail:

GENTLEMEN—I herewith submit my report for the year ending December 31, 1911.

The additions to the Jail, on the north and south ends, have been completed and are now occupied by the inmates. By this addition two hundred and eighty cells have been added, accommodating as many prisoners. They are constructed of reinforced concrete; their wall surface painted and furnished with necessary toilet accommodations; a combined shelf and clothes rack and stool is provided for each cell. A new bathroom has been provided for the female department; also a combined shelf with clothes rack and stools for every cell.

All the bed frames used in the new cells were made in the shops by the prisoners.

New wiring placed in tubes has been done in connection with the time detector.

Five new telephones with an underground system of wiring have been completed.

Other general repairs have been made by the Inspector of Buildings.

Previous reports show the many various improvements made during the past eight years, and with the execution of plans now under consideration this institution, from a physical standpoint, will be second to none of its kind in this country.

Suggestions.

More light and better window ventilation is needed in the new additions.

Some of the cells are too dark on a bright day to read in.

I think several small windows in the roof, opposite the cells, would serve better than one or two large ones.

Before converting the upper stories of the administration building into a hospital, we used it for the accommodation of witnesses. Under present conditions we are compelled to harbor and feed them the same as though they were prisoners. A separate place should be provided for them.

The Building Inspector furnished paints, fire-bricks, lumber, etc., for use in repairs to the Jail. All such work is done by prisoners, which, if the same had to be paid for out of the city treasury, at the usual wage rate, would amount to considerable.

Workshops.

Both the shops have been constantly operated during the past year, but have been seriously handicapped by the decreased number of prisoners, as at the time the contracts were made the Jail population averaged one-third more than it does at this time. This is due to several causes, among which are the short terms of cases doing time for default to pay fines. Under the old law, all such cases, where the lowest fine was one dollar and costs, required, in default of fine and costs, thirty days in Jail.

Under the present law, similar cases, in default, are required to serve one day in Jail for a fine of each dollar, and fraction of a dollar. Thus, a fine of one dollar and costs, making two dollars and forty-five cents, commits the offender to Jail for three days; five dollars and costs, seven days; ten dollars and costs, twelve days; twenty-five dollars and costs, twenty-seven days.

Another reason is due to the change in the statute making it optional with city magistrates in the disposition of assault cases, when under the old law they were all sent to Jail; now many are sent to the House of Correction.

Another reason which, in my opinion, has great merit, is that Maryland is lining up with other progressive States in reformed prison methods by adopting the probation system and aiming to reform and save young offenders by paroling them under the proper guardianship until they, by their conduct, prove themselves worthy of being trusted with all the liberties of citizenship.

Earnings of Prisoners.

The resolution passed unanimously by the Board of Visitors, November 6, 1907, which gives to all prisoners doing three months and over one-quarter of their earnings, is still in force. I consider this act of the Board to be most beneficial in bringing about a feeling among the prisoners that the State instead of holding the prisoner in contempt and as solely the object of vengeance, he is being treated as a man; the principal aim being to make him see himself in the true light, that when he leaves the institution he will go with the impression that the State has treated him with just consideration, and is consequently encouraged to go and sin no more.

Soon after the beginning of my administration, a noted prisoner, serving a sentence of six years and who had been leading a life of crime, said to me: "Mr. Warden, what shall I do when I go out? I have neither friends nor money; will I be compelled to steal again for a living? I have no chance here to make a cent!" I afterward arranged with the contractor to pay him a weekly stipend of one dollar for extra work. Out of this he saved a nice little sum. This man started a

little business of which we knew, and after having been out for six years, we received from him a New Year card, on January 2, sending his good wishes, etc.

I merely mention this to show the effect which the good resolution of the Board has had in trying to help the man that is down and out.

The resolution, sharing the prisoners' earnings, permits him to draw only one-half monthly. This guarantees him a sum at the time of his release.

To show the possible earnings, plus the amounts earned over their regular tasks, the following is a sample of what has been done by different prisoners during the past year:

Prisoner "A"—Serving two years, earned in the first three months	$5 63
Account overtime earned	22 29
Total	$28 06

Prisoner "B"—Serving one year, earned in the first three months	$5 41
Account overtime earned	16 72
Total	$22 13

Prisoner "C"—Serving six months, earned in the first three months	$5 63
Account overtime earned	11 94
Total	$17 57

Prisoner "D"—Serving nine months, earned	$9 54
Account overtime earned	15 48
Total	$25 02

Habitual Prisoners—Male and Female.

There will be found, among the table of statistics, a record showing the number of times certain prisoners have been committed during one year. It shows that four hundred and thirty-four white males were committed from three to nine times; three hundred and twenty-four colored males from three to twenty times; twenty-eight white females from three to twenty times; and one hundred and thirty-eight colored females from three to twenty times. Showing that we have, by the table, nine hundred and twenty-four habituals. We feel safe in saying that there is a thousand such cases in our city, as there were several awaiting court trial which were not included in the tables.

Is not this fact suggestive of the necessity of a change in our present criminal laws? Should the city continue to trifle with such delinquents, hauling them back and forth from station houses and courts?

It seems to me, in the interest of society as well as the offender, that provision should be made to lock such people up indefinitely, that the city might rid itself of the nuisance and expense of this class.

With an indefinite term fixed for such cases, as in other States, some of this class referred to might be restored, and its deterring effect with others would make them more careful in trifling with the law, as they do under present conditions.

Prisoners Held for Trial.

You will find another tabulated statement showing the number of prisoners committed for court within a period of twelve months.

It will be seen that out of twenty-three hundred and twenty-one cases committed, eleven hundred and forty-six (nearly one-half) have either been dismissed or paroled.

Under our present system, as will be seen by the tabulated statement, it was necessary to detain nearly one-half of the number committed in prison for from ten to forty days, and some during the courts' summer vacation for ninety days and more, nearly one-half of which were subsequently released.

These figures suggest to my mind the need of a Municipal or Police Court, where large numbers of these cases could be disposed of promptly, instead of holding them in one section of the Jail, where the young, the old, the good, the bad and indifferent are, from necessity, thrown in contact with each other, consequently subjected to injurious influences, which is always in evidence in such places of detention.

Contracts and Discipline.

In selecting the character of work to be done in a prison, it is important to consider:

First—The possibilities of maintaining the best discipline, that the men can be grouped comfortably in positions that the guard can oversee all prisoners without leaving his post.

Second—The health of the prisoners.

Third—The work should be of such character that the prisoner can learn a trade, by which he can work and earn his living at the time of his release.

These are the principal questions to be considered. All these being equal, then the highest price paid per diem should have the preference.

There is considerable agitation at times, by the public, on account of prison labor competing with outside labor. As a matter of fact, can any industry of any imaginable kind be done by prisoners that does not compete with outside labor?

To my mind the question reverts back to the question: Shall the prisoners be worked at all?

Inmates of prisons are members of the human family, and come from every grade of society; therefore, are they not

(taking a broad Christian view) our brothers? If this be true, then are we not under obligation to see that they are not physically or mentally injured while incarcerated; and, if this be true, then it is our duty to use every effort to make the prisoner a better man—better physically, mentally and spiritually. To do so you should give him work, and teach him to do honest work; treat him fairly and justly; reason with him when necessary, and show him right from wrong. Protect him from any imposition by guards and contractors, and require him to do his part right.

Such has been the policy at this Jail, and it is gratifying to say that I have seen most satisfactory results. And by such treatment alone can you expect fallen men to be restored to honest manhood.

Prisoners' Aid Society.

Following the line of thought regarding the disposition to help the brother who has fallen into crime, the Prisoners' Aid Society is doing a most worthy and beneficial work for our city and State.

Daily its representative is here looking up facts connected with all questionable cases held for court. By these individual investigations, of which the courts are advised, the judges are enabled to arrive at more reasonable conclusions in the disposition of the prisoner.

I heartily endorse the work and would urge the careful reading of their report which is hereby attached.

Religious Services and Entertainments.

Religious services have been continued every Sunday under the control and direction of the Prisoners' Aid Society. All denominations are represented in this work.

On the Fourth of July last there was a very interesting program, in which Dr. Benham and others made patriotic addresses, interspersed with good music.

On Thanksgiving Day, Mr. Orrin C. Painter gave a lecture with stereopticon views of the places he had visited in Europe.

Mr. G. Fred Kranz has on two occasions furnished pianos entirely at his own expense to be used at entertainments.

Exhibits.

Your attention is called to the exhibits as prepared by the clerk, showing financial statements, the annual reports of the Jail Physician and the Prisoners' Aid Society.

Conclusions.

I feel it is due the various employees at the Jail to state that all are endeavoring to do their duty to the best of their knowledge and ability.

Two large dynamo engines, one installed in 1904 and the other in 1910, have been running constantly in their regular order, and are now in first-class condition. This fact reflects credit upon the engineers who have had them in charge.

The kitchen and bakery departments are managed by two conscientious and capable employees.

The female department is under the management of three capable matrons, is well organized and is in good condition.

I must also refer to the valuable assistance tendered by the Deputy Warden, James Macullar, whose sole aim and efforts have been, since the beginning of my administration, to assist and co-operate with me, by thought and suggestion, in maintaining and bringing about an improved condition of things, moral as well as physical, at the Baltimore City Jail.

I would also refer to the capable and efficient services rendered by the Jail Physician, Dr. George L. Wilkins; and the Clerk, Mr. Harry C. Martin.

Wishing the Board of Visitors a successful administration, I am,

Yours respectfully,

Charles A. Hook,
Warden.

EXHIBITS

EXHIBIT A.

A summary of the appropriations for the twelve months ending December 31, 1911. Also a summary of the revenues of the Jail and their disposition, and a comparative statement for the years 1910, 1909, 1908, and 1907.

Appropriations.		Expenditures.	
Salaries	$36,650 00	Salaries	$36,385 72
		Balance unexpended to surplus credit	264 28
	$36,650 00		$36,650 00
General expenses	$28,500 00	General subsistence	$17,363 56
		Heating and lighting	458 59
		Machinery and supplies	794 44
		Clothing, dry goods, etc.	2,738 07
		Sanitary	1,554 12
		Hospital drugs	637 90
		Hospital subsistence	195 01
		Incidental expenses	1,798 25
		Warden subsistence	999 92
		Filing cases, clerk's office	957 83
		Balance carried forward to 1912 to apply to auto van	1,002 31
	$28,500 00		$28,500 00

EXHIBIT A.—*Continued.*

Revenues.

Amount paid to City Comptroller, account		
Jail revenues	$12,756 87	
Prisoners' shop earnings	3,368 78	

Outstanding Accounts.

Maryland Veneer and Basket Co...	$510 06	
Hawkins Shirt Co.	490 76	
United States Marshal	429 10	
U. S. Immigration Commissioner..	54 50	
Frederick County	27 00	
Anne Arundel County	7 00	
Baltimore County	25 50	
		1,543 92
		$17,669 57

Outstanding accounts, January 1, 1911....	$1,500 04

Earnings During Year.

Maryland Veneer and Basket Co.	6,439 12
Hawkins Shirt Co.	7,857 20
United States Marshall	1,655 30
United States Immigration Commission...	84 00
Board county prisoners	48 50
Miscellaneous board	46 50
Sale junk	38 91
	$17,669 57

In addition to the revenues from the Maryland Veneer and Basket Co., the said company furnished the following amount of coal:

Maryland Veneer and Basket Co., 1,295 tons, amounting to.....$4,082 13

EXHIBIT A.—*Continued.* PRISONERS' SHOP EARNINGS.

PRISONERS' EARNINGS.		PRISONERS' WITHDRAWALS.	
January, 1911—			
Maryland Veneer and Basket Co... $143 96			
Hawkins Shirt Co..... 125 95			
	$269 91	January, 1911.....	$291 30
February, 1911—			
Maryland Veneer and Basket Co... $159 15			
Hawkins Shirt Co..... 131 91			
	291 06	February, 1911.....	221 55
March, 1911—			
Maryland Veneer and Basket Co... $184 84			
Hawkins Shirt Co..... 143 39			
	328 23	March, 1911.....	326 30
April, 1911—			
Maryland Veneer and Basket Co... $167 47			
Hawkins Shirt Co..... 118 90			
	286 37	April, 1911.....	326 75
May, 1911—			
Maryland Veneer and Basket Co... $162 94			
Hawkins Shirt Co..... 142 63			
	305 57	May, 1911.....	276 93
June, 1911—			
Maryland Veneer and Basket Co... $150 92			
Hawkins Shirt Co..... 126 61			
	277 53	June, 1911.....	233 50
July, 1911—			
Maryland Veneer and Basket Co... $140 64			
Hawkins Shirt Co..... 121 65			
	262 29	July, 1911.....	324 69

EXHIBIT A.—*Continued.* PRISONERS' SHOP EARNINGS.

PRISONERS' EARNINGS.			PRISONERS' WITHDRAWALS.		
August, 1911—					
Maryland Veneer and Basket Co...	$140 42				
Hawkins Shirt Co.....	133 93				
		$274 35	August, 1911.....	$259 97	
September, 1911—					
Maryland Veneer and Basket Co...	$138 33				
Hawkins Shirt Co.....	137 72				
		276 05	September, 1911.....	320 99	
October, 1911—					
Maryland Veneer and Basket Co...	$141 96				
Hawkins Shirt Co.....	130 98				
		272 94	October, 1911.....	340 55	
November, 1911—					
Maryland Veneer and Basket Co...	$131 44				
Hawkins Shirt Co.....	116 61				
		248 05	November, 1911.....	271 00	
December, 1911—					
Maryland Veneer and Basket Co...	$139 69				
Hawkins Shirt Co.....	136 74				
		276 43	December, 1911.....	210 53	
		$3,368 78			
Balance due January 1, 1911.....		1,256 49			
		$4,625 27	Total withdrawn.....		$3,404 06
Amount added from deceased prisoners...		2 20	Balance due Jan. 1, 1912.....		1,223 41
		$4,627 47			$4,627 47

EXHIBIT A.—*Concluded.*

	1911.		1910.		1909.		1908.		1907.	
	Yearly.	Daily.	Yearly.	Daily.	Yearly.	Daily.	Yearly.	Daily.	Yearly.	Daily.
Salaries of officers (per capita cost maintenance)	$62.84	.1721	$57.46	.1574	$50.10	.1373	$44.876	.1226	$45.617	.1249
Subsistence (per capita cost maintenance)	29.99	.0822	28.96	.0793	27.50	.0753	24.117	.066	23.945	.0656
Heat and light (per capita cost maintenance)	.79	.0022	.70	.0019	.47	.0013	.550	.0015	.690	.00189
Machinery and repairs (per capita cost maintenance)	1.37	.0038	.95	.0026	.80	.0022	.830	.0025	1.599	.00438
Clothing, dry goods, shoes (per capita cost maintenance)	4.73	.0129	5.68	.0155	4.05	.0111	3.874	.0105	3.262	.00893
Sanitary (per capita cost maintenance)	2.68	.0073	2.30	.0063	1.71	.0047	1.539	.0042	2.566	.00703
Special diet for sick (per capita cost maintenance)	.34	.0009	.57	.0016	.51	.0014	.594	.0015	.3599	.00098
Incidental expense (per capita cost maintenance)	3.11	.0085	2.45	.0067	1.44	.004	1.465	.0040	3.202	.00877
Hospital and drugs (per capita cost maintenance)	1.10	.0003	1.50	.0042	1.01	.003	.833	.0023	.0925	.00025
Warden's subsistence	1.73	.0047	1.63	.0045	1.41	.0038	1.275	.0033	1.379	.00377
Miscellaneous	1.65	.0045	1.55	.0043	.....	.....	.....	.....	.....	.....
Totals	$110.43	.2994	$103.75	.2843	$89.00	.2441	$79.953	.2184	$82.7124	.22650

EXHIBIT B.

A comparative table of the monthly and yearly averages of the prisoners for 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910 and 1911, the highest and lowest number during each of these years.

Months	1911	1910	1909	1908	1907	1906	1905	1904	1903
January	594	553	729	763	752	738	665	642	607
February	580	586	715	782	708	687	635	598	570
March	542	605	690	749	684	696	705	688	582
April	515	604	708	709	697	663	676	679	627
May	551	604	729	644	714	674	679	670	609
June	564	623	695	662	738	828	729	656	593
July	611	645	705	788	772	796	742	698	618
August	637	644	764	889	779	870	794	749	689
September	633	658	757	903	768	818	794	780	728
October	658	688	730	928	707	818	764	720	730
November	526	599	672	832	689	776	741	645	658
December	532	567	572	755	696	720	754	638	654
Yearly average	579	615	706	784	725	749	723	679	639
Highest number in Jail.	695	725	820	960	825	897	826	819	831
Lowest number in Jail..	467	519	539	584	638	621	607	541	533

EXHIBIT C.

Number of Prisoners Received During 1911.		Number of Prisoners Released During 1911.	
January	745	January	762
February	656	February	693
March	776	March	802
April	629	April	641
May	792	May	749
June	791	June	807
July	977	July	855
August	883	August	984
September	890	September	798
October	814	October	872
November	585	November	690
December	822	December	726
Total	9,360	Total	9,379

Total released	9,379
Total received	9,360
Decrease	19
In Jail December 31, 1910	619
Decrease	19
In Jail December 31, 1911	600

EXHIBIT D.

A table showing the number of prisoners committeed for the action of court, the various offenses, and disposition of same, covering a period of one year, from December 1, 1910, to December 1, 1911.

Charges.	MALE.																						FEMALE.																Total.		Total.
	Jail.		Penitentiary.		House of Correction.		Bay View.		St. Mary's.		Col. House of Refuge.		Md. School for Boys.		Not Guilty.		Stet.		Grand Jury.		Paroled.		Jail.		Penitentiary.		House of Correction.		House Good Shepherd.		Not Guilty.		Stet.		Grand Jury.		Paroled.				
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	
Burglary	19	29	12	23					1						11	14		1	9	6	7	6		2		1			1			1					1	60	84	144
Larceny	127	158	13	50	9	10	1	1	7				3		44	75	6	5	69	81	57	29	9	72	1	15	1	2			6	15	2	2	15	80	10	10	380	605	985
False pretense	10	2	3	1			1								3	4	5		5	5	6	1										1			2	1			35	15	50
Fraud			1												3	4	2		4	3	3			1												1			13	9	22
Embezzlement	12	11	1			2									2	2			2	2	7	2																	24	19	43
Perjury						1																	1																1	1	2
Desertion and non-support	3	1			27	8									2	3		1	11	3	25	23																	68	39	107
Incest			1	1			1																																2	1	3
Assault	32	100	3	18	9	20			1						8	20	3	4	34	51	8	6		27		3		7				2		1	1	11			99	270	369
False fire alarm	1																																						1		1
Carnal knowledge				4	3	3									3	1			1	2											1								8	10	18
Indecent exposure	1	7				1									2	2			1		2	2																	6	12	18
Bigamy			2	1																																	1		3	1	4
Threat																			1																				1		1
Disturbing peace	15	24					1								3	18	1		17	19	2	3	3	20			1				1	13			2	18	1	1	47	116	163
Rogue and vagabond															2																								2		2
Concealed weapons	6	24									1				2	5			1	2	3	6		1							1								13	39	52
Pickpocket																1																								1	1
Forgery	3	4	3	2												1																							6	7	13
Murder	2		3	6			1								1																								7	6	13
Rape	1	1	2	12											3	3		2				1																	6	19	25
Manslaughter																1																								1	1
Robbery	10	7	7	5											6	9			2	1	2																		27	22	49
Defrauding boardinghouse																			3	3																			3	3	6
Begging					1										1				3																				5		5
Illegal voting																			1																				1		1
Pandering	3		2	1											5	2	1		4		1	1			1										1				18	4	22
Peace bail	5	3													3	7																							8	10	18
Habitually disorderly					6	3									4	1				1		1					10	10			1								21	16	37
Vagrant					6	4									15	1	1		5	1	2						4	2			2								33	10	43
Receiving stolen goods	3		1			1			1						1	1				1			1	1							1								7	5	12
Betting																1																								1	1
Gaming	2	5														5				7		1																	2	19	21
Violating liquor law															1					1			2	3															3	0	0
Abduction																	1																						1		1
No license																			1		1																		2		2
Conspiracy	1														1		3							1							1	1							6	2	8
Violating parole					1	1															1																		2	1	3
Bastardy		2		1																1																				4	4
Arson			1																1												2								2	2	4
Disorderly house																				1																					1	1
Opium		3													1									1																1	1	2
Harboring female minor																1			3												1								3	2	5
Malicious destruction prop.	1															1				1																				1	2	3
Obstructing railroad						2																																		2	2
Violating city ordinance		2													2																								2	2	4
Sodomy	2																																						2		2
Kidnapping																										1															1	1
Bawdy house																							2									2			1				3	2	5
Abortion																									2							1				1			3	1	4
Adultery																							1																1		1
Dissolute life																											2	3											2	3	5
	259	383	55	125	62	56	5	1	10			1	3		129	183	23	13	178	192	127	82	19	129	4	20	18	24	1		11	42	2	5	22	112	13	12	944	1,377	2,321

EXHIBIT E.

A table showing the number of habitual prisoners committed by police magistrates, who have been sent to Jail three or more times during the year.

Times Committed	Male		Female	
	White	Colored	White	Colored
Three	175	90	9	33
Four	120	65	3	20
Five	63	48	4	12
Six	42	32	4	15
Seven	19	24		18
Eight	13	17	1	16
Nine	2	14		6
Ten		12	1	8
Eleven		7	3	1
Twelve		5	1	4
Thirteen		3		2
Fourteen		2		
Fifteen		4	1	1
Sixteen				
Seventeen				
Eighteen				
Nineteen				
Twenty		1	1	2
Total	434	324	28	138

PHYSICIAN'S REPORT.

BALTIMORE, December 31, 1911.

To the Honorable Board of Visitors to the Baltimore City Jail:

GENTLEMEN—I have the honor to submit the following report of the Medical Department of the Jail for the fiscal year ending December 31, 1911, together with a tabulated statement and summary of the work of the Department.

The total number of cases treated during the year was 8,204; the total number of prescriptions was 10,479, and the total number of special diets was 4,522.

There were ten deaths during the year, or a death rate of 1.21 per thousand cases treated. There was also a death in the Jail not credited to the mortality list, for the reason that the man's sentence had expired before his death.

The causes of death were as follows: Valvular diseases of the heart, 4; delirium tremens, 3; Bright's disease of the kidneys, 2; pneumonia, 1; septic pericarditis, 1.

All of the decedents were ill when admitted to the Jail, and two of them died three days after their admission.

During the year there were 437 cases of alcoholism, or delirium tremens, and there were six drug habits. Four of the drug habits were addicted to the use of opium or morphia and two to cocaine.

During the past few years there has been a marked decrease in the number of drug habits coming to the Jail, and I think it affords a striking example of the efficient enforcement by the Police Department of the laws relating to the sale of narcotic drugs.

The records show seven cases of pulmonary tuberculosis, and thirteen of glandular tuberculosis. At times during the year the Jail was entirely free from consumption. The result of the treatment of such cases has been, on the whole, quite satisfactory.

There was one case of diphtheria, but, by isolation and proper care, the disease was limited to the original case.

For the year 1910, 1,104 prisoners were committed to the Jail on the charge of drunkenness, and for the same year the sentences for disorderly conduct numbered 2,561. The total number of prisoners for the year was 9,775. The percentage of "drunks" to the whole number was about eleven per cent., while the percentage of "disorderly conducts" was about twenty-six per cent. The combined class of "drunks" and "disorderly conducts" furnished thirty-seven per cent. of all admissions to the Jail for the year.

It seems to be perfectly safe to state that the greater percentage of persons arrested for disorderly conduct on the streets are under the influence of intoxicants at the time of their arrest.

Our experience shows about 500 cases of alcoholism, or delirium tremens, annually; they all require great care and attention and add to the mortality list of the Jail for each year.

In view of these facts, this subject requires more than a passing notice. By an Act of the Legislature, adopted a few years ago, the penalty for drunkenness or disorderly conduct, in default of the payment of a small fine, was made a trifling term of imprisonment in the Jail, averaging from three to twenty-seven days. In many cases the sentence of the prisoner expires before he has recovered from the effects of his intoxication, and many times the prison authorities are compelled to release him when he is not in a proper condition to be turned loose on the public streets. The same individual is guilty of the same offense repeatedly during the

same year, and, at times, is returned to the Jail in a very short time after his release—in some cases as soon as twenty-four or forty-eight hours.

From our observations, we are forced to the conclusion that the present law is totally inadequate to correct or reform such abuses. It is simply absurd to expect that a trifling and insignificant stay in the Jail will limit or correct such offenders against law and order.

There is not the proper appreciation of the gravity of this offense and it does not receive proper consideration from the law-makers. Probably there is no greater menace to society than the habitual drunkard, and there is no crime so destructive of human happiness, nor blights so many lives, as drunkenness; nor is the harm limited to the offender, but, for the most part, is visited upon helpless wives and innocent children.

I do not believe that law can cure crime, but I do believe that the present condition can be greatly improved by wise legislation. The crime of habitual and repeated drunkenness ought to be punished by long terms of imprisonment, associated with some industrial occupation. Such individuals ought to be deprived of the opportunity of gratifying their morbid appetites for a sufficiently long period to cure the desire, and re-educate and reform them mentally, physically and morally. To accomplish this requires time and long separation from the exciting cause.

For the year 1911, forty-eight prisoners sentenced to the Jail were insane. It is a self-evident proposition that a Jail is not the proper place for the insane. For eleven years, following what seemed to be a plain interpretation of Section 144 of the Charter for Baltimore City, such persons were promptly and expeditiously sent to an asylum for the treatment of the insane. In November, 1910, the Board of Supervisors of City Charities raised the question of the legality of the transfer of the insane, as well as certain other cases, by

the Board of Visitors to the Baltimore City Jail under Section 144 of the Charter, and the question was referred to the City Solicitor, who, on February 14, 1911, decided that the power of the Visitors of the Jail was limited to the transfer of cases sentenced to the Jail for "drunkenness" and "disorderly conduct," and that in all other cases their removal could only be accomplished by summoning the State Lunacy Commission (Chapter 412, Acts of 1898).

The practical effect of this decision has been far from satisfactory. During the year thirteen insane prisoners have been transferred to insane asylums through the Lunacy Commission, and, with the exception of a few acquitted by the courts on the ground of insanity, it has become necessary to release all other insane prisoners on the expiration of their sentences.

Most of them were sent to the Jail under short sentences, and before it was possible for three members of the Lunacy Commission to examine them and take the other steps necessary to send them to an asylum, the prison authorities were compelled to release them. In view of the foregoing facts, I would respectfully request that the Board of Visitors to the Baltimore City Jail co-operate with the State Lunacy Commission to secure the enactment, at the present session of the Legislature, of such legislation as will make it possible to transfer more expeditiously the insane or sick, sentenced to the Jail by magistrates for minor offenses, to insane asylums or hospitals.

I beg to make the following quotation from my report for 1910:

"Throughout the year frequent inspections were made of the food suplied to the prisoners, and, almost without an exception, I have found the meat, bread, and other foodstuffs pure, good and wholesome. An addition to the present breakfast and supper diets, such as baked beans, hominy, cornmeal mush, etc., would serve to relieve the present monotony of

these meals, and add to the variety of nutritious and wholesome foods and would be a distinct step in advance in the way of prison alimentation.

"As heretofore, a constant supervision is kept over the heating, ventilation and other sanitary measures in the Jail."

Thanking the Board of Visitors, the Warden and the other officers of the Jail for their uniform courtesy and constant assistance to me in the discharge of the duties incident to my office, this report is respectfully submitted.

GEORGE L. WILKINS,
Physician.

TABULATED STATEMENT AND SUMMARY OF THE WORK OF THE MEDICAL DEPARTMENT.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Abscess	4	4	3	1	3	6	6	3	5	3	2	2	42
Acne	3	5	10	5	4	1	3	1	4	2	....	1	39
Adenitis	2	4	2	....	3	3	4	4	2	3	1	1	29
Alcoholism	23	27	37	32	41	33	38	21	34	38	23	24	371
Alopecia	....	....	....	....	1	....	....	....	....	....	....	....	1
Amenorrhoea	....	....	....	....	1	....	....	....	....	....	....	....	1
Anaemia	....	....	....	1	4	....	....	....	....	....	....	....	5
Appendicitis	....	....	....	....	....	....	....	....	1	....	....	....	1
Arterio Sclerosis	4	3	5	2	4	1	3	5	7	8	4	4	50
Asthma	2	....	2	....	1	6	2	2	1	1	....	....	17
Balanitis	1	....	1	....	1	....	....	....	....	....	....	2	5
Bite—Human	....	....	1	....	1	....	....	1	....	....	....	2	5
Bite--Dog	....	....	....	....	....	....	....	....	....	....	....	2	2
Blepharitis	....	....	....	....	....	....	....	1	....	....	....	....	1
Boil	2	4	6	6	3	3	5	4	4	3	2	1	43
Bright's Disease	1	....	....	....	....	....	....	1	....	....	1	....	3
Bronchitis and Cough	97	81	61	60	29	47	56	39	58	64	31	67	690
Bruise	4	6	5	1	8	2	8	5	8	7	6	5	65
Bubo	4	3	2	2	....	3	3	2	4	2	1	....	26
Burns	4	1	4	3	1	5	5	2	4	5	2	....	36
Bursae	....	....	....	1	2	....	....	....	....	....	....	....	3
Catarrh, Nasal	7	4	6	1	1	4	9	2	10	11	5	1	61
Carbuncle	1	1	....	....	1	....	....	....	....	....	1	....	4
Cephalalgia	24	14	11	17	18	23	24	26	26	28	16	7	234
Chancroids	5	1	1	3	4	3	3	6	6	5	4	1	42
Chapped Lips	2	1	....	2	3	2	3	3	3	4	....	1	24
Colic, Intestinal	4	4	1	3	5	6	8	7	7	9	2	1	57
Conjunctivitis	8	8	7	24	14	11	13	7	15	13	5	5	130
Constipation	123	74	79	73	96	96	95	107	98	96	143	104	1184
Cornitis	....	....	....	....	....	....	....	1	....	....	....	....	1
Coryza	43	39	26	25	10	11	20	41	22	26	26	46	335
Cystitis	1	1	....	....	....	1	1	....	....	....	....	....	4
Debility, General	5	9	8	7	4	3	4	2	6	5	7	3	63
Delirium Tremens	8	2	5	4	7	3	5	2	8	10	6	6	66
Dermatitis	....	....	....	....	1	....	....	....	....	....	....	....	1
Diarrhoea	10	11	12	9	7	16	18	20	16	17	8	8	152
Dislocation	....	....	....	....	....	....	....	....	....	....	1	....	1
Diuresis	2	1	3	....	3	7	4	7	6	5	....	3	41
Dysmenorrhoea	....	....	....	....	2	....	....	....	....	....	....	1	3
Dysentery	2	1	1	2	....	....	....	....	....	....	4	....	10
Drug Habit	....	....	....	1	....	....	3	....	....	....	....	2	6

SUMMARY OF THE MEDICAL DEPARTMENT.—*Continued.*

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Embolism												1	1
Eczema		4	1	5	5	5	6	5	8	3	5	3	50
Epididymitis						2	2		1	1			6
Epilepsy		2		2	1	1	4	4	5	6	2		27
Epistaxis		1	1								2	1	5
Erysipelas					2								2
Felon—Bone	1	1	1						2				5
Fever, Intermittent	6	3	1	1	1	1	3		5	7	4		32
Fistula in Ano				1					1			1	3
Fracture		1	1	1	1			2				1	7
Frostbite				1									1
Gleet			1	1		1	3		2	3	3		14
Gonorrhoea	11	7	18	7	7	12	10	15	12	14	11	7	131
Heart, Val. Disease	2	1	1	3	1	4	5	5	4	3		1	30
Hemorrhage												1	1
Hemorrhoids	3	6	6	1	7	4	6	4	8	7	9	5	66
Hernia		1			1	1	4	1	2	3	2		15
Herpes		1	1					2			3		7
Hysteria	1	1						3			1		6
Indigestion	32	32	24	26	46	47	49	38	54	58	43	39	488
Insanity	4	3	5	6	4	5	4	5	4	2	2	3	47
Insomnia	2	2		2	1						2	8	17
La Grippe	6											1	7
Laryngitis	1	4	5	1	1	1	6	3	5	6	2	1	36
Leucorrhoea						1	3	1	4	3		1	13
Lipoma						1							1
Lumbago	8	5	13	5	8	9	7	20	8	6	8	6	103
Mastitis			3	1	2	1		2				1	10
Malaria											1		1
Menorrhagia			4	4	4	3	5	8	6	7		2	43
Myalgia	54	77	82	84	68	95	97	79	99	97	92	100	1024
Neuralgia	10	4	5	5	2	3	4	6	8	11	8	7	73
Neurasthenia	2		1			2	1				2	1	9
Neuritis		1		2	2								5

SUMMARY OF THE MEDICAL DEPARTMENT.—*Continued.*

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Orchitis	2	1			1	3	2		2	3			14
Otalgia	5	3	4	2	3	7	5	5	6	4	4	1	49
Otitis Media	2	1	2		1	3	3	3	2	3		3	23
Onychia												1	1
Parotiditis				1									1
Pediculosis Pubis	3					1	2	1	4	3	3		17
Pericarditis—Septic											1		1
Periostitis			3										3
Pharyngitis	56	31	31	26	30	32	28	14	28	30	35	32	373
Pleurisy				1									1
Pleurodynia				1	5							2	8
Pneumonia				1					2				3
Pregnancy	4	1		4							1		10
Prurigo					1								1
Psoriasis			1			1	1		2	1			6
Pterygeum				1	1								2
Rheumatism	11	19	13	18	17	25	27	16	26	23	22	36	253
Rhus Poisoning						1							1
Scabies			1		1			1			2	4	9
Sprain	8	7	8	8	7	9	8	9	6	4	10	6	90
Sore Nose				4	1	1	3		4	6	5	1	25
Stomatitis	6	7	2		5	2	3	4	4	7	3	3	46
Stye		3		1		1	1	2	1	2	2		13
Sycosis (Tinea)									1	1			2
Syphillis, Primary	2	4	3	1	1	6	8	11	10	11	6	10	73
" Secondary	4	4	11	4	12	5	5	5	6	8	11	8	83
Tonsilitis—													
Simple	23	6	7	12	8	11	9	7	10	9	11	13	126
Follicular	3		3	3	4	1	1	1	2	1	1	1	21
Ulcerative	1				2							1	4
Toothache	18	15	15	6	18	4	12	15	14	12	16	14	159
Tuberculosis—													
Glandular	1		2	2	1	1	1	3	1		1		13
Pulmonary		1		1	1	1	1			1	1		7
Ulcer, Simple	1	4	4		1	1	1	3	2	4	5		26
" Varicose	2	1											3
Urine, Suppressed	2	1				1					3		7
Urticaria	2	2	6		1	1	5	3	4		7	1	32
Uvulitis												1	1

SUMMARY OF THE MEDICAL DEPARTMENT.—*Continued.*

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Vertigo	8	6	5	6	7	5	3	3	8	11	8	1	71
Warts, Venereal						3	1					1	5
Wen				1									1
Worms, Seat					1								1
" Tape												1	1
Wounds, Abraded	9	15	13	8	5			1			9	4	64
" Contused	8		2	7	9	4	2	1	4	6		4	47
" Gun Shot						2							2
" Incised	6	6	3	5	3	2	2	3	6	7	8	3	54
" Infected	11	7	9	5	9	8	7	7	6	8	10	11	98
" Lacerated	18	19	18	11	14	10	10	12	14	13	14	25	178
" Punctured	4	1	1		2	6	6	1	8	6		1	36
Totals	759	631	640	584	619	651	719	656	776	786	703	680	8204

TOTAL NUMBER OF CASES TREATED.

White Male	275	237	241	219	211	230	241	239	249	257	247	255	2901
White Female	34	27	21	19	21	24	30	28	32	38	32	32	338
Colored Male	309	278	267	247	261	284	336	293	356	361	324	298	3614
Colored Female	141	89	111	99	126	113	112	96	139	130	100	95	1351
Totals	759	631	640	584	619	651	719	656	776	786	703	680	8204
Cured	641	533	521	485	516	534	598	541	631	634	562	551	6737
Relieved	116	98	119	99	103	116	121	114	144	152	138	126	1456
Died	2					1		1	1		3	3	11
Totals	759	631	640	584	619	651	719	656	776	786	703	680	8204
Prescriptions	1061	770	865	795	873	923	843	919	824	907	890	809	10479
Renewals	46	34	47	37	33	41	47	38	24	28	26	47	448
Diseases	759	631	640	584	619	651	719	656	776	786	703	680	8204
Surgical Operations	1	2	1	1				1	1		1		8
Teeth Extracted	12	6	11	5	14	11	12	12	11	12	14	16	146
Wounds Dressed	77	49	51	61	59	61	56	54	58	53	54	84	717
Special Diets	468	478	354	382	363	172	120	192	318	333	583	739	4522

SUMMARY OF THE MEDICAL DEPARTMENT.—*Concluded.*

TRANSFERRED TO BAY VIEW ASYLUM.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
White Male	3	1		1	2	2					1		10
White Female				1						1			2
Colored Male						1							1
Colored Female	1					1							2
Totals	4	1		2	2	4				1	1		15

CAUSE OF TRANSFERS.

Insanity, 8; Alcoholism and General Debility, 6; Bright's Disease and General Dropsy, 1.

DEATHS FOR YEAR ENDING DECEMBER 31, 1911.

NAME	Age	Admitted	Date of Death	Cause of Death
*John Webb	38	Nov. 15, 1910	Jan. 5, 1911	Val. Dis. Heart, Asthma.
*Edith Brown	22	Jan. 7, 1911	Jan. 14, 1911	Val. Dis. Heart, Asthma.
*William Jones	67	May 16, 1911	June 6, 1911	Val. Dis. of the Heart.
Gusta Ely		Aug. 7, 1911	Aug. 10, 1911	Bright's Dis., Ure. Coma.
*Harry Waters	22	Sept. 18, 1911	Sept. 25, 1911	Pneumonia.
*Jas. Mahomet	38	Oct. 19, 1911	Nov. 3, 1911	Bright's Dis., Ure. Coma.
*Thos. Hopkins	60	Nov. 8, 1911	Nov. 13, 1911	Septic Pericarditis.
James Mack	50	Nov. 10, 1911	Nov. 13, 1911	Delir. Tremens, Gastritis.
Chas. L. Skinner.	68	Oct. 31, 1911	Dec. 13, 1911	Embolism, Val. Dis. Heart and Arterio Sclerosis.
Wm. Penn	49	Dec. 2, 1911	Dec. 13, 1911	Delir. Tremens—Held as guest.
*Isaac Banks	31	Dec. 20, 1911	Dec. 24, 1911	Delirium Tremens.

(*) Indicates colored.

REPORT OF THE PRISONERS' AID ASSOCIATION.

BALTIMORE, January 1, 1912.

To the Honorable Board of Visitors to the Baltimore City Jail:

GENTLEMEN—We take pleasure in handing you a report covering our aid and relief, employment, religious and probation work for the year ending December 31, 1911, and think you will agree that, compared with previous years, a great advance in all lines of usefulness is shown.

In comparing one field—that of probation—our report sent to you as of December 31, 1910, showed that we had received during the year 1909 eighty-seven, and during 1910 one hundred and twenty-four, probationers, making a total of two hundred and eleven in the two years. During the present year, we have had three hundred and eleven probationers placed in our care; during the year one hundred and ten probationers have fulfilled the requirements of their probation and have been discharged, twenty-three have violated their probation conditions and have been incarcerated for said violation. We have three hundred and thirteen probationers at the present time. The reported earnings of our probationers for the year was $61,885.94.

We have interviewed in the Baltimore City Jail 2,447 persons in connection with our probation work, taking biographical statements of nine hundred and fifty-four persons. Nine hundred and two cases that we have investigated in this way have come before the Criminal Court during the year. We have interviewed in the office for investigation eighteen hundred and fifteen persons.

Regarding the aid and relief and employment work, we beg leave to state that within the year we have received into our "Home" the following number of persons:

From Baltimore City Jail	93
From Maryland House of Correction	192
From Penitentiary	21
Probationers	12
From miscellaneous sources	61
	379
Interviewed in Baltimore City Jail for employment	311
Interviewed in Penitentiary for employment	7
Interviewed probationers at "Home" for employment	132
Interviewed firms for employment	101
Employment secured for	246
Number of men awaiting employment in "Home"	18
Number of men now in "Home"	30
Refunds received from beneficiaries of "Home"	$836 16
Families of prisoners visited	30
Miscellaneous visits for prisoners	180
Underwear, clothing, etc., furnished to	368
Eye glasses furnished to prisoners	49
Transportation for discharged prisoners to homes and employment	50
Meals furnished to beneficiaries	23,693
Lodgings furnished to beneficiaries	7,674

We think it is well to note, at this point, the fact that eighty-nine men who came into the "Home" during the year were completely rehabilitated; we know from our own personal knowledge of these men that they have been returned to their homes or have found permanent employment in the city and are now law-abiding citizens.

Regarding the religious work, services have been held Sunday mornings and afternoons at the Baltimore City Jail, and in the afternoon at Towson Jail and Maryland House of Correction.

We have distributed tracts and Bibles as follows:

	Tracts	*Bibles*
City Jail	9,000	416
House of Correction	10,000	637
Towson Jail	3,000	148

We conduct meetings every Tuesday and Friday evening at the "Home" for the uplift of men. The services at the institutions and at the "Home" are conducted by preachers and laymen from all denominations.

Catholic services are held at the "Home" twice a month (Wednesday evenings).

We have also been able through the co-operation of the Warden to give several entertainments to the men and women at your institution during the year.

Our records show the following charges for actual relief to beneficiaries from January 1, 1911, to January 1, 1912:

Provisions	$1,677 16
Rent and outside lodgings	677 80
Transportation to discharged prisoners	52 42
Clothing purchased	239 75
Sundry aid and relief	98 93
Sundry expenses in connection with "Home"	518 33
Repairs—"Home"	37 51
Improvements—"Home"	648 69
Lectures, etc., religious work	110 46
Amount of alimony received and paid for Court during year,	3 698 41
Total outgoing pieces of mail handled by our office	39,838

It is with the greatest pleasure that we express our gratitude for the sympathy expressed in our work by your Honorable Board and by the Warden. We have constantly had fine co-operation in all that we have tried to do for the benefit of the men in your institution and we are sure that the good that has been done these men has only been brought about by this co-operation. Very often we have been enabled to have work

for the men when their term had expired simply because we have been allowed to interview them and know what kind of work they were qualified to do.

We hope that the coming year may show a great advance over the work of the past year.

Respectfully submitted,

CHARLES D. REID,
Executive Secretary.

ANNUAL REPORT

OF THE

CITY ENGINEER

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

ORGANIZATION

OF THE

CITY ENGINEER'S DEPARTMENT

H. K. McCAY.....City Engineer.
GEORGE M. BOTELER.....Chief Clerk and Paymaster.

Sub-Division of Street Repairs.

Sub-Division of New Paving.

Sub-Division of Bridges.

Sub-Division of Sewers.

Sub-Division of Sewers, House Connections.

Sub-Division of Inspection.

Sub-Division of Footway Inspection.

INSTRUCTIONS TO FOREMEN AND OTHER EMPLOYEES

1. Foremen must be on the ground not later than 7.45 A. M., in order that the work may begin promptly at 8 o'clock.

2. Eight hours constitute a day's work, and each man will be allowed only for the actual time worked.

3. The hours for every working day will be from 8 o'clock A. M. until 5 o'clock P. M., with one hour, 12 o'clock noon to 1 o'clock P. M., for dinner. On Saturdays the hours may be from 7 A. M. to 4 P. M.

4. Gangs must not be worked overtime if it can be avoided.

5. Foremen must not leave the work without permission. If anything is needed, report it to the engineer in charge, his assistants, or send a message to the City Hall. When necessary for foremen or men to be at the City Hall, business must be promptly transacted; they will not be allowed to remain in or about the Hall.

6. Foremen will be held responsible for the amount and character of work done, and for the orderly behavior and industry of their men.

7. Foremen must lay out the work for their men and not select a paver to act as boss paver over the other men.

8. Foremen must not allow mechanics, pavers, rammers or carters to work as laborers, except at the wages of a laborer, unless expressly authorized to do so by the engineer in charge.

9. Work must be so planned as to obstruct travel, and inconvenience the public as little as possible. Refuse material must not be allowed to accumulate on the work. Streets must be in safe condition when the force leaves, and the proper lights and guards set.

10. A careful record must be kept of each man's time, with the dates, location, kind of work, and all facts necessary to make up correct payrolls and accounts of the work, and report to the engineer in charge or his assistants.

11. Foremen must keep a careful record of all tools and materials received and delivered; they will be held responsible for the economical use of materials, and must account for all losses and breakage of all tools. All broken or worn-out tools must be returned to the Property Yard.

12. No repaving must be done on rainy days, when the ground is soft, and the sand too wet. No time to be allowed on rainy days, except for service rendered.

13. It must be the constant effort to have good work done at the least cost to the city.

14. As little time as possible must be lost in moving from one job to another, and foremen must learn in advance where they are to go next.

15. Any employee who shall absent himself from the works, without good and sufficient cause, will be dismissed and his place filled by another man.

16. Any employee found under the influence of liquor, or using profane and abusive language, negligent, insubordinate, or in any way interfering with or obstructing the work, shall be promptly suspended by the foreman. A written report, giving the facts in the case, must be immediately transmitted to the engineer in charge, signed by the foreman.

17. Foremen must not frequent saloons under any pretext whatever during working hours, nor permit any one under their charge to do so. Any one not complying with this order will be liable to dismissal.

18. All orders or tickets for material on Property Yard, or on contractors, must be written and signed by the foreman.

19. Foremen will in all cases make written reports of any accident, of however trifling a nature, that may occur on their work, giving date, names and addresses of witnesses, etc.

20. Any employee on the work who shall solicit contributions of contractors, furnishing material, or of any other person, will be dismissed at once.

21. Foremen will be provided with copies of specifications for materials, and must carefully read the same, and must accept only material in accordance with said specifications.

22. The use of the city's tools or materials by any one, in doing private work in or out of working hours, is strictly forbidden; any violation of this order will be followed by immediate dismissal.

23. Foremen must carefully read the foregoing rules, familiarize themselves with them, and see that those employed under them also fully understand the rules.

REPORT

BALTIMORE, January 1, 1912.

To the Honorable the Mayor and City Council of Baltimore.

GENTLEMEN:—I herewith submit the Annual Report of the operations of the City Engineer's Department for the year ended December 31, 1911.

The Department starts the new year excellently equipped for the work contemplated. The City Engineer, having been made Chief Engineer of the Paving Commission, will take charge of all new paving, and in addition to his already many duties in connection with street repairs.

The Department has been reorganized by sub-dividing the work into various divisions as noted on the third page, and I look forward to excellent results from this sub-division. A capable and efficient engineer has been placed in charge of each sub-division, and I feel satisfied that the best interests of the city will be subserved by each sub-division.

The following reports show in detail the expenditure of money by this Department and could be studied with a great deal of profit by anyone interested therein. I am,

Yours very truly,

H. K. McCAY,
City Engineer.

The total mileage and area of paved and unpaved streets and alleys in the City of Baltimore, corrected to December 31, 1911, is as follows:

Character of Surface.	Streets.		Alleys.		Totals.		Under Guarantee.	Under Maintenance.
	Mileage.	Sq. Yds.	Mileage.	Sq. Yds.	Mileage.	Sq. Yds.	Sq. Yds.	Sq. Yds.
Cobble Stone	238.08	4,426,936	113.81	774,895	351.89	5,201,831	8,192	5,193,639
Granite Block	43.34	936,233	0.56	6,190	43.90	942,423	127,861	814,562
Sheet Asphalt	19.62	515 603	.....	.....	19.62	515,603	240,914	274,689
Asphalt Block	16.65	415,321	2.66	18,364	19.31	433,685	35,083	398,602
Vitrified Block	18.00	366,342	3.02	23,225	21.02	389,567	150,390	239,177
Wood Block	1.53	35,961	.....	.....	1.53	35,961	16,495	19,466
Macadam (Ordinary)	56.39	1,004,561	0.17	1,360	56.56	1,005,921	7,921	998,000
Macadam (Bituminous)	3.12	51,734	.....	.....	3.12	51,734	2,333	49,401
Bithulithic	10.00	271,015	.....	.....	10.00	271,015	241,378	29,637
Medina Block	.....	1,517	.....	.....	.....	1,517	.....	1,517
Cement Surface	.....	.....	2.09	12,896	2.09	12,896	.....	12,896
Unpaved	37.89	725,933	18.26	152,284	56.15	878,217	.....	878,217
Totals	444.62	8,751,156	140.57	989,214	585.19	9,740,370	830,567	8,909,803

Note.—The classification here made is: Where the thoroughfare is paved and curbed and footways provided, it is called a street, regardless of its width. All thoroughfares twenty (20) feet wide and under, which are not curbed, paved and provided with sidewalks are classed as alleys.

The above table does not include any work of the State Roads Commission, Annex Commission, or of this Department for which contracts have been entered into and remain uncompleted December 31, 1911.

MONEYS RECEIVED BY THE CITY ENGINEER'S DEPARTMENT DURING THE YEAR 1911.

There was received in the City Engineer's Department during the year 1911, $87,034.64, which was duly forwarded to the City Register.

Receipts by Months, Account of Private Paving and Inspection:

January	$12,265 74	
February	5,007 11	
March	4,332 04	
April	5,298 33	
May	6,149 75	
June	6,429 52	
July	10,506 19	
August	6,591 87	
September	8,068 06	
October	3,691 91	
November	10,098 00	
December	5,511 43	
		$83,949 95

The Following Amounts Received and Credited to Revenue Account:

From sale of old material	*3,084 69
Total	$87,034 64

*Comparison with Other Years for Sale of Old Material:

Year of 1900	$1,214 72
Year of 1901	1,696 00
Year of 1902	533 00
Year of 1903	1,591 55
Year of 1904	2,359 36
Year of 1905	3,000 38
Year of 1906	3,249 30
Year of 1907	2,393 24
Year of 1908	5,566 20
Year of 1909	3,217 52
Year of 1910	5,311 16
Year of 1911	3,084 69

FINANCIAL STATEMENT

FINANCIAL STATEMENT

THE CITY COUNCIL MADE THE FOLLOWING APPROPRIATIONS, PROVIDED FOR IN THE TAX LEVY FOR 1911

	Appropriation.	Received from Contingent Fund and Other Sources	Balance Carried Forward From 1910	Total Available	Total Expended	Balances Dec. 31, 1911	Balances Available for 1912
Repairs to roads, streets, etc	$267,650 00	$129 09		$267,779 09	$267,779 09		
Repairs to sewers	10,800 00	3 09		10,803 09	9,291 02	$711 98	
Maintenance of bridges and culverts	16,000 00	10 00		16,010 00	14,321 87	1,688 13	
Paving and repairing cross streets and paving in front of city property	43,000 00	166 58		43,166 58	44,982 85	183 73	
Livery and transportation	2,500 00			2,500 00	2,356 00	144 00	
Footway crossings	5,000 00			5,000 00	2,107 66	2892 34	
Maintenance of property yard	2,800 00			2,800 00	2,792 31	7 69	
Incidentals	1,000 00			1,000 00	822 17	177 83	
Advertising	300 00			300 00	282 48	17 52	
Improvements in and additions to the drainage system	24,000 00	37 00		24,037 00	24,037 00		
Yard establishments	6,800 00	637 49		6,637 49	4,611 77	2025 72	
Paving private alleys	5,000 00	4,777 32		9,777 32	2,459 00		$7,318 32
Emergency Fund	20,000 00			20,000 00	10,075 97	24 03	
Salaries	44,230 00			44,230 00	42,469 97	1,760 03	
Edmondson avenue bridge			$4,713 05	4,713 05	3,243 09	1,469 96	
Paving Guy street			18,612 42	18,612 42	12,349 43	114 81	
Paving Twenty-fourth street					6,148 18		
Gwynns Falls Bridge on Franklin road			180 52	180 52	109 35	71 17	
Constructing base for Key Monument			87 89	87 89	54 99	32 90	
Paving Fulton avenue, from Wilkens avenue to Frederick avenue					11,524 75		
Paving Edmondson avenue, from P. P. & W. Railway to Fulton avenue					23,287 93		
Paving Fremont avenue, from Baltimore street to Pratt street					10,328 81		
Paving Front street, from Mosher street to McMechen street					1,994 39		
Paving Carrollton avenue, from Lanvale street to Harlem avenue					3,494 58		
Paving Oliver street, from Caroline street to Broadway					8,692 09		
Paving Barre street, from Light street to Charles street					6,328 72		
Paving West street, from Light street to Riverside avenue					5 39		
Paving Lombard street, from Hopkins Place to Hanover street					7,242 21		
Paving High street, from Fayette street to Lexington street					3,501 32		
Paving Aisquith street, from Ashland avenue to Chase street	171,305 00			171,305 00	8,095 85		26,413 31
Paving O'Donnell street, from Chesapeake street to Canton street					13,613 93		
Paving Patuxent street, from Fayette street to Philadelphia road					1,257 42		
Paving Mulberry street, from Payson street to Pulaski street					257 28		
Paving Welcome alley, from Charles street to Hanover street					1,543 76		
Paving Pleasant street, from Cathedral street to Little Sharp street					1,327 04		
Paving Concord street, from Lombard street to Pratt street					3,941 02		
Paving Eutaw street, from Fremont avenue to Henrietta street					9,678 91		
Paving Howard street							
Paving Hamburg street, from Howard street to Plum alley					7,885 02		
Paving Hamburg street, from Eutaw street to China alley					1,197 16		
Paving Foster alley					1,423 86		
Remodelling Howard street sewer at Hamburg street					1,206 18		
Sewer on University Parkway to Keswick road					4,108 28		
Sewer on Lafayette avenue, from Monticello avenue to Milton avenue	$9,331 05			9,331 05	831 05		
Sewer in Falls road from Clipper Mill road about four hundred feet north					1,575 93		
Lowering Eutaw street drains					2,725 73		
Paving Park Terrace, from Park avenue to Robert avenue		2,400 00		2,400 00	2,112 03	287 37	
Paving Laurens street, from Park avenue to Bolton street	$8,106 00			8,000 00	6,049 33	1,950 67	
Paving Laurens street, from Park avenue to Bolton street	5,000 01			5,000 00	3,670 68	1,329 32	
Paving Luzerne street, from Federal street to Bolton to Cemetery	2,500 00			2,500 00	2,500 00		
Paving Mosher street, from Madison avenue to McCulloh street	3,300 00			3,300 00	5 38		3,294 62
Paving Hillis street, from Garrison avenue to Catherine street	4,000 00	1,415 00		6,015 00	6,015 00		
Macadamizing Duval, Roslyn and Piedmont avenues		2,500 00		2,500 00	2,500 00		
Underpinning buildings on Howard, Eutaw and Hamburg streets		5,500 00		5,500 00	5,094 76		405 24
Paving Canton street		3,000 00		3,000 00	65 24		2,934 76
Totals from tax levy	$953,710 05	$20,570 08	$23,593 88	$997,886 01	$942,430 53	$14,889 20	$40,566 28

STATEMENT OF AMOUNTS EXPENDED DURING 1911, ACCOUNT OF STREETS PAVED BY ASSESSMENT.

Name of Street	Ordinance	From	To	Advertising	Wages of Inspectors, Etc.	Amount Paid Contrs.	Rebate Property Owners	Totals
Rose street	No. 178, 1908	Monument street.	McElderry street		$53 50	$3,114 77		$3,168 27
Totals					$53 50	$3,114 77		$3,168 27

SUMMARY OF EXPENDITURES DURING THE YEAR 1911

From tax levy	$942,430 53
From amounts collected account streets paved by assessment	3,168 27
From amounts collected account private paving and inspection	83,249 95
From amounts collected account paving private footways	308 83
	$729,857 58

REPORT OF

J. A. PAIGE, *Assistant City Engineer*

1911

Report of J. A. Paige, Assistant City Engineer

1911

City Engineer's Department.

Baltimore, January 1, 1912.

Mr. H. K. McCay, *City Engineer.*

Dear Sir:—I have to report on the operations in my charge during the year 1911. This includes new pavements laid by contract, the Maintenance of Bridges and Culverts, the record of Grade Establishments, Inspection and Maintenance of Guaranteed Pavements, Assessments for paving Private Alleys, the supervision on the part of the City of the reconstruction of the Pennsylvania Railroad Company's bridges in the vicinity of the New Union Station, and of the B. & O. R. R. Co.'s construction of the Hamburg Street Viaduct, and other matters that came up in connection with the above.

After June 1st I was also put in charge of the Division of Street Repairs, when Mr. R. K. Compton, Assistant City Engineer, was appointed on the Paving Commission.

NEW PAVEMENTS LAID.

The amounts of new pavements laid by contract and by the Department's labor are given below:

Kind of Pavement.	Lengths (All Widths) Feet.	Square Yards.
Sheet Asphalt	8,004	32,485
Asphalt Block	287	1,571
Vitrified Block	8,479	31,202
Granite Block	2,186	11,079
Concrete	446	496
Macadam	4,964	10,520
Total (4.66 miles)	24,366	87,353

Other data relating to this work will be found in the Table of Guaranteed Pavements, and in the description of the different jobs in the body of this report.

Streets and Street Intersections Paved with New Pavement in 1911.

Street.	From	To	Pavement.	Length Feet.	Area Sq. Yds.	Guaranteed by Contractor.
Edmondson Ave...	W.C.L. Fulton Av	E. end P. B. & W. Ry. Bridge.	Sht. Asp. and Gr. Blk.	1,765	8,495	W. M. Elder.
Fulton Ave.....	S.B.L. Wilkens...	S. Flags Frederick	Vit. Block	1,742	7,910	W. M. Elder.
O'Donnell	E.C.L. Chesapeake	E.B.L. Canton....	Vit. Block	1,222	5,405	M. J. Beach.
Patuxent	N.B.L. Fayette...	S.B.L. Phila. Rd.	Vit. Block	97	455	M. J. Beach.
Fremont Ave.....	S. Flag Baltimore	N. Flag Pratt St.	Gran Block	1,094	4.799	W. M. Elder.
Welcome Alley...	3 ft. W. of W. C. L. Charles St..	3 ft. E. of E. C. L Hanover	Vit. Block	287	384	Paved by the Dept.
Pleasant	4 ft. E. of E. C. L. Cathedral St.	E.B.L. Sharp St..	Vit. Block	206	261	Paved by the Dept.
Concord St.....	S.B.L. Lombard..	N.B.L. Pratt St...	Gran. Block	316	1,055	Paved by the Dept.
Brunt	N.C.L. Mosher...	S.C.L. McMechen.	Vit. Block	359	482	Paved by the Dept.
Foster Alley.....	N.B.L. Mosher...	S.C.L. Lafayette..	Vit. Block	340	458	Paved by the Dept.
Carrollton Ave....	S.B.L.Lanvale ...	N.C.L. Harlem Av	Sheet Asph.	377	1,607	W. M. Elder.
Oliver	E B.L. Caroline..	W.B.L. Broadway	Sheet Asph.	840	4.009	W. M. Elder.
Barre	W.B.L. Light....	W.B.L. Charles..	Gran. Block	376	1,635	W. M. Elder.
Lombard	3 ft. E. of E.C. L. Hopkins Place..	5 ft. W. of W. C. L. Hanover....	Gran. Block	400	1,753	W. M. Elder.
High	N.C.L. Fayette ..	S. Flag Lexington	Sheet Asph.	513	1,656	W. M. Elder.
Aisquith	3 ft. N. of N. C. L. Ashland Av.	S.B.L. Chase.....	Sheet Asph.	945	3,871	W. M. Elder.
Hollins	E.C.L. Garrison..	W.B.L. Catherine.	Vit. Block	643	2,786	P. F. Reddington.
Luzerne	N.C.L.Federal ...	S.B.L.Balto. Cem.	Vit. Block	213	1,054	M. J. Beach.
Canton	N.B.L. Fairmount	S.B L. Fayette....	Vit. Block	405	1,624	Geo. Long Contr. Co.
Calvert	North end Bridge	S.B.L. North Ave	Sht. Asp. on Cob.	1,245	5,079	F. E. Schneider Pv. Co.
Lanvale	E. Flag Charles...	W. Flag Greenm't	Sht. Asp. on Cob.	1.981	8,244	F. E. Schneider Pv. Co.
Courtland	N.B.L. Hamilton.	S.B.L. Center....	Vit. Block	223	743	Filbert Pav. & Con. Co.

Hargrove Alley ..	N.B.L. Hamilton.	S.B.L. Center....	Vit. Block	227	476	Filbert Pav. & Con. Co.
Park Terrace.....	E.C.L. Robert Av.	W.C.L. Park Ave.	Vit. Block	585	2,377	P. F. Reddington.
Guilford Ave.....	N. Flag 23rd.....	S.C.L. 24th St....	Sht. Asp. on Cob.	338	1,361	Filbert Pav. & Con. Co.
Cokesbury Ave...	4 ft. E. of E. B. L. Greenmount Av	495 ft. E. and Southward	Vit. Block	495	2,297	W. M. Elder.
Intersection	Eutaw Place	North Ave.....	Vit. Block	190	378	Paved by the Dept.
Intersection	Mt. Royal Ave...	McMechen St....	3x5 Asp. Block...	125	725	Paved by the Dept.
Intersection	Eutaw Place.....	McMechen St....	3x5 Asp. Block...	162	846	Paved by the Dept.
Webster	N. Flag Fort Av.	N.B.L. Hyacinth.	Vit Block	120	593	Paved by the Dept.
McKean Ave.....	N.B.L. North Av.	S.B.L. 1st al. N.	Vit. Block	93	394	Paved by the Dept.
Clifton Ave.	W.B.L. Fulton Av	W. B. L. 1st alley north	Vit. Block	85	425	Paved by the Dept.
Fleet	E.C.L. Luzerne..	E.C.L. Glover...	Vit. Block	191	935	Paved by the Dept.
Mine Bank Lane..	S.C.L. Federal...	N.C.L. Oliver....	Vit. Block	326	449	Paved by the Dept.
10 ft. Alley north of Stockholm St	S.E.C.L. Wicomico	W.C.L. Scott....	6x8 in. concrete wearing surface	446	496	Paved by the Dept.
Rose	S.C.L. Monument	N.C.L. McElderry	Vit. Block	364	1,006	P. F. Reddington.
Intersection	Cleveland and	Carey	Vit. Block	66	310	Geo. F. Beavin.
Jenkins Lane.....	Taylor	160 ft. W. of Har.	Macadam	1,806	3,411	Paved by the Dept.
Independence	Gorsuch Ave. ...	205 ft. N. & 40 S.	Macadam	245	653	Paved by the Dept.
Montpelier	Ellerslie	Independence	Macadam	523	1,395	Paved by the Dept.
Presbury	Friendsbury	Al. E. of Payson.	Macadam	435	725	Paved by the Dept.
Calverton Rd	Baltimore	Hollins St.....	Macadam	468	1,300	Paved by the Dept.
Roslyn Ave	Bateman Ave. ..	Duvall Ave.....	Macadam	850	1,800	Paved by the Dept.
Duvall Ave.	Garrison Ave. ...	Roslyn Ave.....	Macadam	343	648	Paved by the Dept.
Piedmont Ave.....	Garrison Ave. ...	Roslyn Ave.....	Macadam	294	588	Paved by the Dept.
			Total.....	24,366	87,253	

THE FOLLOWING STREETS WERE PAVED UNDER SPECIAL ORDINANCES AND PERMITS ISSUED BY THE DEPARTMENT.

STREET.	From	To	Pavement.	Length Feet.	Area Sq. Yds.	Guaranteed by Contractor.
Linwood Ave	N.C.L. Biddle..	S.C L. Preston ..	Vit. Block	353	1,301	M. J. Beach.
Lakewood Ave. ..	9 ft. N. of N. C. L. Monument..	S.C.L. Madison..	Vit. Block	337	1,575	M. J. Beach.
Cleveland	W.C L. Stockh'lm	W.B.L. Carey ..	Vit Block	551	1,925	Geo. F. Beavin.
39th St.	N. Gutter Univ. Parkway	W.C.L. Oak St..	Macadam	870	4901	P. F. Reddington.
Glover	S.C.L. Foster Av.	N. Flag Fait Av	Vit. Block	328	875	Geo. Long Contr. Co.
			Total.....	2,439	10,577	

New Macadam Roadways were Constructed as Given Below.

Street.	From	To	Length.	Width	Area. Sq. Yds.	Cost	Remarks.
Jenkins Lane.....	Taylor St.	160' W. of Harf'd	1,806	14 to 18	3,411	$2,451 62	Cobble base laid with 3 in. crushed stone wearing surface.
Independence	Gorsuch Ave. ...	205 ft. N. & 40 S	245	24	653	691 60	Cobble base laid with 3 in. crushed stone wearing surface.
Montpelier	Ellerslie	Independence ...	523	24	1,395	861 39	Completing top course; base laid 1910.
Presbury	Friendsbury	Al. E. of Payson	435	15	725	724 73	Cobble base laid and 3 in. crushed stone put down for wearing surface.
Calverton Rd. ...	Baltimore	Hollins	468	25	1,300	2,295 76	Roadway regraded and 6 in. Macadam roadway constructed.
Roslyn Ave.	Bateman Ave. ...	Duvall Ave.	850	18 10 20	1,800	2,052 00	Asphalt bats laid for base and covered with 6 in. crushed stone, rolled.
Duvall Ave.	Garrison Ave. ..	Roslyn Ave.	343	17	648	635 04	Asphalt bats laid for base and covered with 6 in. crushed stone, rolled.
Piedmont Ave. ..	Garrison Ave. ...	Roslyn Ave.	294	18	588	2,581 05	Asphalt bats laid for base and covered with 6 in. crushed stone, rolled.
		Total.....	4,964		10,520		

Roslyn, Duvall and Piedmont Avenues were commenced on an allotment of $2,500.00 given the department by the State Roads Commission, and completed at a cost of $3,206 09. The amount $768.09 being charged to Repairs of Roads and Streets.

UNDERPINNING BUILDINGS ON HOWARD, EUTAW AND HAMBURG STREETS.

Before the grading began on these streets the matter of underpinning certain buildings, where the grades were lowered, was taken up with the Inspector of Buildings, and on March 16th a report was made to this department of these buildings, which required additional walls under the present foundations. The owners were notified to protect their property by underpinning, but all parties declined to comply with the notices. This department was directed to underpin the buildings where necessary and allotments were made for this purpose from the contingent fund (in all $5,500.00). Steps to the buildings on Hamburg street and on Howard street and Eutaw street, near Hamburg street, were put up where necessary. The drain and water pipes were lowered to proper grade under the footway by this department. The walls were in all cases extended to three (3) feet below the new footway grade. The underpinning was from six (6) inches to six feet five inches (6.5). The buildings underpinned were Numbers 930, 932, 934, 936, 938, 940, 944, 1000, 1002, 1004, 1006, 1008, 1012, 1014, 1016, 1018, 1022 and 1024 South Eutaw street; Numbers 402, 404, 406, 408, 410, 412, 414, 226, 228 and 230 Hamburg street, and Numbers 901, 903, 905, 907, 909, 917, 929, 931, 933, 935, 937, 1001, 1003, 1005, 1007, 1009, 1011, 1013, 1015, 1017, 1019, 1021, 1023, 1025, 1027, 1029 South Howard street, fifty-five (55) buildings in all. The amount expended was $5,094.76.

Charged to: Underpinning buildings Howard, Eutaw and Hamburg streets.

REPAIRS AROUND KEY MONUMENT.

Some portions of the footway failed surrounding the Key Monument, erected in 1910 at Eutaw Place and Lanvale street. The joints in the granite parapet of the basin opened

slightly. Repairs of these defects were undertaken, but before completion the Board of Park Commissioners took charge of the structure and completed the repairs. There was expended by this department $54.99 of the balance carried over from the original appropriation made in 1910.

Charged to: Construction of Base for Key Monument.

RETAINING WALL ON FALLS ROAD.

A slide in the west side of the roadway about 700 feet south of Cedar avenue was repaired in September by a Rubble concrete retaining wall, mixed 1, 2½ and 5, from 10 to 12 feet high, with widths on top and bottom of 1 foot and 4 feet, respectively. Length is 61 feet 5 inches. The cost, including excavation and forms, was $532.27.

Charged to: Repairs of Roads and Streets.

RETAINING WALL IN REAR ENOCH PRATT LIBRARY, No. 15, S. W. COR. TAYLOR ST. AND GORSUCH AVE.

To protect alley in rear of the building, which at present is not graded to established grade, a concrete retaining wall was built in November (mixed 1, 2½ and 5) from the west end of the Library retaining wall westward about 45 feet. It is from 6 to 8 feet high, with widths on top and bottom of 1 and 2½ feet, respectively. The cost was $251.66.

Charged to: Emergency Fund.

DRAIN AT STONEY RUN BRIDGE .

When this bridge was built the drainage at the western end was discharged through the N. W. wing wall by a 30-inch T. C. pipe. The water flowed thence eastward and under the Maryland and Pennsylvania Railway track to Stoney Run.

The channel beneath the tracks was a 15-inch T. C. pipe. This was overflowed and the railway tracks in freshets was damaged. This department laid a 20-inch T. C. pipe from the end of the pipe at the N. W. wing wall eastward to a flume, dropping about 16 feet, thence under the railway tracks to Stoney Run. The total cost was $479.28.

Charged to: Improvements and Addition to Drainage System.

STATEMENT OF EXPENDITURES—SPECIAL ORDINANCES AND ALLOTMENTS.

Lay out and improve Park Terrace, from Park Ave. to Robert avenue, per Ord. No. 544, approved June 9th, 1910	$6,049 33
Regrade and repave Laurens Street, from Park avenue to Bolton Street, as per Ord. No. 532, approved June 4, 1910	3,670 68
Regrading, paving and curbing Hollins Street, from Garrison Lane to Catherine Street, as per Ord. No. 554, approved June 13th, 1910	6,015 00
Pave, regrade and curb Luzerne Street, from Federal Street to Baltimore Cemetery, per Ord. No. 528, approved June 4th, 1910	2,500 00
Grade, pave and curb Rose Street, from Monument to McElderry Streets, per Ord. No. 178, approved July 7th, 1908.	3,168 27
Key Monument	54 99
Franklin Road Bridge over Gwynns Falls	109 35
Edmondson Avenue Bridge over Gwynns Falls	3,243 09
Underpinning Buildings, Howard, Eutaw and Hamburg Streets.	5,094 76
Paving Canton Street, from Fairmount Avenue to Fayette Street, per Ord. No. 420, approved Dec. 10th, 1909	65 21
Macadamizing Duvall, Roslyn and Piedmont Avenues	2,500 00
Regrading and repaving Mosher street, from Madison avenue to McCulloh Street, per Ord. No. 492, approved June 6th, 1910	5 38

STATEMENT OF EXPENDITURES—SUNDRY STREETS.

Appropriation $171,305 00

Expended.

Grade, curb and pave West St., from Light St. to Riverside Avenue	$5 39	
Grade, curb and pave Patuxent St., from Fayette St. to Philadelphia Road	1,257 42	
Grade, curb and pave Mulberry St., from Payson to Pulaski Sts	257 28	
Grade, curb and pave Pleasant St., from Cathedral St. to Little Sharp N. of Pleasant St.	1,327 04	
Grade, curb and pave N. S. O'Donnell St., from Chesapeake to Canton Sts	13,613 93	
Grade, curb and pave High St., from Fayette to Lexington Sts.	3,501 32	
Grade, curb and pave Lombard St., from Hopkins Place to Hanover St	7,242 21	
Grade, curb and pave Fulton Ave., from Wilkens Ave. to Frederick Ave	19,524 75	
Grade, curb and pave Barre St., from Light to Charles Sts.	6,328 72	
Grade, curb and pave Carrollton Ave., from Lanvale St. to Harlem Ave	3,494 58	
Grade, curb and pave Oliver St., from Caroline St. to Broadway	8,692 69	
Grade, curb and pave Aisquith St., from Ashland Ave. to Chase St	8,095 85	
Grade, curb and pave Edmondson Ave., from P., B. & W. Ry. to Fulton Ave	23,287 93	
Grade and repave Hamburg St., from Plum alley to Howard St.	1,197 10	
Grade and repave Hamburg St., from Eutaw St. to China Alley	1,429 89	
Grade, pave and curb Fremont Ave., from Baltimore to Pratt Sts	19,328 81	
Grade, curb and pave Welcome Alley, from Charles to Hanover Streets	1,545 76	
Grade, curb and pave Concord St., from Lombard to Pratt Streets	3,941 92	
Amounts carried forward	$124,072 59	$171,305 00

Amounts brought forward	$124,072 59	$171,305 00
Grade and repave Eutaw St., from Fremont Ave. to Henrietta Street	9,678 91	
Grade and repave Howard St., from Cross to Henrietta Streets	7,885 62	
Grade, pave and curb Foster Alley, from Mosher St. to Lafayette Avenue	1,260 18	
Grade, curb and pave Brunt St., from Mosher to McMechen Streets	1,994 39	
		144,891 69
Carried forward to 1912		$26,413 31

EXPENDITURES FOR SUNDRY STREETS PAVED IN 1910; PAYMENTS MADE IN 1911.

Grade, curb and pave Carey St., from Columbia Ave. to Pratt Street	$12,349 43
Grade, curb and pave Cokesbury Ave. (Twenty-fourth St.) from York Road eastward	5 818 84

MAINTENANCE AND REPAIRS OF BRIDGES.

In this work that portion expended for repairs and renewals of the roadway floors and which was considered road pavement was charged to Repairs of Roads and Streets. Other expenditures were charged to Maintenance of Bridges and Culverts.

The work done during the year on the different bridges is given below:

ARGYLE AVENUE BRIDGE.

The top and bottom cords and counter rods of trusses Nos. 4, 5 and 6 from east end were renewed throughout. All floor stringers were renewed. Portion of the roadway floor was renewed and the balance repaired. All iron work painted two (2) coats with tar, cement and coal oil mixture.

Charged to:—Maintenance of Bridges and Culverts	$1,168 46	
Repairs of Roads and Streets	272 33	
		$1,440 79

BATH STREET BRIDGE.

Repaired floor roadway.

Charged to:—Repairs of Roads and Streets..... $25 29

BEECH AVENUE BRIDGE.

Repaired roadway floor.

Charged to:—Repairs of Roads and Streets..... 38 28

BIDDLE STREET BRIDGE.

Repaired hand rail.

Charged to:—Maintenance of Bridges and Culverts..... 50 65

CALVERT STREET BRIDGE.

All iron and steel work above roadway floor was painted two (2) coats white lead and oil, except hand rail, which received one (1) coat dark green mineral paint. Expansion plate on roadway was repaired.

Charged to:—Maintenance of Bridges and Culverts..... 1,402 20

CENTER STREET BRIDGE.

Repaired roadway floor.

Charged to:—Repairs of Roads and Streets..... 75 17

CEDAR AVENUE BRIDGE.

Repaired roadway and footway floors and hand rail, and encased foot of iron posts in concrete. All iron and steel work painted with two (2) coats of Etna paint.

Charged to:—Maintenance of Bridges and Culverts. $1,085 95
Repairs on Roads and Streets..... 125 51
——— 1,211 46

CHARLES STREET BRIDGE.

Painted all iron work beneath the floor with two (2) coats coal tar, cement and coal oil mixture. Painted hand rail with one (1) coat Etna paint.

Charged to:—Maintenance of Bridges and Culverts..... 905 99

CHASE STREET BRIDGE.

Repaired hand rail, guard rail, footway floor and footway stringers.

Charged to:—Maintenance of Bridges and Culverts..	$627 92	
Repairs of Roads and Streets.....	30 80	
		$658 72

CLIPPER MILL FOOT BRIDGE.

Repaired floor of footway.

Charged to:—Maintenance of Bridges and Culverts.....	2 80

COLUMBIA AVENUE BRIDGE.

Repaired footway.

Charged to:—Maintenance of Bridges and Culverts.....	16 62

EDMONDSON AVE. BRIDGE OVER GWYNNS FALLS.

Enlarged openings in 34 scuppers.

Charged to:—Maintenance of Bridges and Culverts.....	45 75

EDMONDSON AVE. BRIDGE OVER P., B. & W. RY.

Repaired N. roadway, footways, hand rails and housing of lower cords. Painted all iron and steel work under floors with coal tar, cement and coal oil mixture.

Charged to:—Maintenance of Bridges and Culverts..	$394 27	
Repairs of Roads and Streets.....	23 97	
		418 24

FALLS ROAD CULVERT S. OF MERRYMANS LANE.

Iron hand rail constructed and concrete footway laid.

Charged to:—Maintenance of Bridges and Culverts.....	223 40

FAYETTE STREET BRIDGE.

Repaired footway floors and stringers.

Charged to:—Maintenance of Bridges and Culverts.....	53 99

FRANKLIN ROAD BRIDGE OVER GWYNNS FALLS.

Completed erection of safety rail on S. truss, and name plate. Repaired wood block floor.

Charged to:—Maintenance of Bridges and Culverts.....	82 75

FRANKLIN ST. CULVERT OVER GWYNNS RUN.

Constructed concrete curb (partly constructed in 1910).
Charged to:—Maintenance of Bridges and Culverts..$116 20
Repairs of Roads and Streets..... 50
$116 70

GAY STREET BRIDGE.

Repaired 1 counter rod.
Charged to:—Maintenance of Bridges and Culverts..... 2 75

GUILFORD AVENUE BRIDGE.

Repaired hand rail and footway.
Charged to:—Maintenance of Bridges and Culverts..... 78 14

HARMONS ROAD BRIDGE.

Repaired roadway (renewed floor in part).
Charged to:—Maintenance of Bridges and Culverts..$304 32
Repairs of Roads and Streets..... 87 80
392 12

HAMBURG STREET VIADUCT OVER B. & O. TRACKS

Erected and painted hand rail on south side.
Charged to:—Maintenance of Bridges and Culverts..$147 07
Repairs of Roads and Streets..... 1 66
148 73

JENKINS LANE BRIDGE.

Repaired roadway floor.
Charged to:—Repairs of Roads and Streets..... 1 9 03

LAFAYETTE AVE. CULVERT OVER GWYNNS RUN.

Constructed hand rail and filled in wash-out.
Charged to:—Maintenance of Bridges and Culverts..... 53 73

LOMBARD STREET BRIDGE.

Renewed track stringers under south track, relaid south floor and repaired footway and roadway.
Charged to:—Maintenance of Bridges and Culverts..$394 62
Repairs of Roads and Streets..... 51 62
446 24

MADISON STREET BRIDGE.

Repaired roadway floor and footway.

Charged to:—Maintenance of Bridges and Culverts...	$ 9 86	
Repairs to Roads and Streets.....	20 31	
		$30 17

MARYLAND AVENUE BRIDGE.

Painted all iron and steel work beneath floor two (2) coats coal tar, cement and oil mixture. Hand rail painted 1 coat Etna paint. Repaired roadway floor.

Charged to:—Maintenance of Bridges and Culverts..	$625 67	
Repairs of Roads and Streets.....	42 41	
		668 08

MONUMENT STREET BRIDGE.

Repaired footway.

Charged to:—Maintenance of Bridges and Culverts.....	5 96

S. MONROE STREET BRIDGE.

Painted all iron and steel work beneath floor. Renewed bottom cords of the 3 trusses over the main tracks of B. & O. Ry. and renewed the stiffeners and lace bars of same. Footways, hand rails and roadways were repaired.

Charged to:—Maintenance of Bridges and Culverts.	$2,005 52	
Repairs of Roads and Streets.....	830 82	
		2,836 34

N. MONROE STREET BRIDGE.

Painted all iron and steel work under floor with two (2 coats coal tar, cement and coal oil mixture. Renewed some floor stringers and renewed portion of top and bottom floor. Footways and hand rails were repaired.

Charged to:—Maintenance of Bridges and Culverts..	$682 99	
Repairs of Roads and Streets.....	968 03	
		1,651 02

MERRYMANS LANE AND HICKORY AVE. CULVERT.

Repaired covers at ends of drain.

Charged to:—Maintenance of Bridges and Culverts.....	4 50

MT. VERNON AVENUE BRIDGE.

All iron and steel work painted with two (2) coats of Etna paint. Footway and roadways were repaired and portion of roadway floor renewed.

The bottom cords of the hand rails were clothed in concrete, 3 in. x 3 in., reinforced with ¼-in. round iron.

Charged to:—Maintenance of Bridges and Culverts	$1,808 84	
Repairs of Roads and Streets	170 72	
		$1,979 56

PRATT STREET BRIDGE.

One (1) counter road repaired.

Charged to:—Maintenance of Bridges and Culverts	88

PRESTON STREET BRIDGE.

Repaired hand rail.

Charged to:—Maintenance of Bridges and Culverts	30 32

RAMSAY STREET CULVERT.

Repaired fence at west approach.

Charged to:—Maintenance of Bridges and Culverts	2 62

STAFFORD LANE CULVERT.

Repaired hand rail.

Charged to:—Maintenance of Bridges and Culverts	2 63

SLINGLUFF AVENUE BRIDGE (NORTH).

Repaired roadway floor.

Charged to:—Repairs of Roads and Streets	18 10

SLINGLUFF AVENUE BRIDGE (SOUTH).

Repaired roadway floor.

Charged to:—Repairs of Roads and Streets	1 38

ST. PAUL STREET BRIDGE.

Relaid sheathing over tracks, removed lamp post bases and painted cords within bases.

Charged to:—Maintenance of Bridges and Culverts	325 59

UNION AVENUE BRIDGE.

Repaired footway.

Charged to:—Maintenance of Bridges and Culverts..... $12 74

WILKENS AVENUE BRIDGE.

Repaired roadway floor.

Charged to:—Repairs of Roads and Streets..... 111 99

WINDSOR MILL ROAD BRIDGE.

Repaired roadway floor.

Charged to:—Repairs of Roads and Streets..... 4 57

WOODALL AND CLEMENT STS., BOX CULVERT.

Repaired top and sides.

Charged to:—Maintenance and Bridges and Culverts..... 1 50

WILKENS AVENUE CULVERT, OVER MAIDEN'S CHOICE RUN.

Protected failing foundation at four (4) corners by driving sheet piling 3 feet from side walls and about 6 feet below low water. Reinforced foundations by filling space between walls and piling with concrete. Filled in washout on footways.

Charged to:—Maintenance of Bridges and Culverts..$953 75
Repairs of Roads and Streets..... 43 94
997 69

MISCELLANEOUS ACCOUNT TOOLS & SUPPLIES.

Various tools and supplies were purchased, not chargeable to any one bridge. Inspection was also periodically made of all bridges, the expense of which was charged to this account.

Total expenditures to this account were..... 413 50

For expenses of Watchman at City Yard there was prorated to account of Maintenance of Bridges and Culverts. 277 42

Total $17,286 10

The total amount expended account of Maintenance Bridges and Culverts was:—

For Maintenance of Bridges and Culverts proper and charged to Maintenance of Bridges and Culverts	$14,321 87
Charged to:—Repairs of Roads and Streets account of Bridge floors	2,964 23
Total	$17,286 10

CONSTRUCTION OF NEW BRIDGES.

EDMONDSON AVENUE BRIDGE OVER GWYNNS FALLS.

The expense on this bridge was the final payment to the Contractor ($3,106 74). To the Consulting Engineer final payment ($38 35) and some final repairs of leaks at the approaches ($98 00). Total ..... $ 3,243 09

FRANKLIN ROAD BRIDGE OVER GWYNNS FALLS.

This bridge, though opened to traffic on December 2nd, 1910, was not entirely completed last year. The material for the railing on south truss was purchased and partly erected. The name plate was purchased, but not erected till 1911. Total amount charged to the original appropriation for construction was $109.35. (See Franklin Road Bridge, under Maintenance of Bridges and Culverts.)

DIVISION OF STREET REPAIRS.

The following table shows the unit amounts of work done during the year 1911, under all accounts, the same data for 1910, and the increase or decrease, as the case may be, is also shown:

Classification.	Unit.	1910.	1911.	Increase.	Decrease
Asphalt Block pavement, repaired	sq. ft.	255,196	306,340	51,144	.....
Belgian Block pavement, repaired	sq. ft.	406,186	709,040	302,854	.....

Classification.	Unit.	1910.	1911.	Increase.	Decrease
Belgian Block pavement, new	sq. ft.	46,330	.....	.....	46,330
Concrete base laid	sq. ft.	191,492	197,119	5,627	.....
Concrete curb constructed by city	lin. ft.	3,821	1,185	.....	2,636
Concrete curb reset and retopped	lin. ft.	943	50	.....	893
Concrete gutter constructed at yards and laid	lin. ft.	63,245	27,865	.....	35,380
Concrete gutter constructed on work	lin. ft.	1,924	396	.....	1,528
Concrete sidewalk	sq. ft.	712	62	.....	650
Cobble pavement repaired	sq. ft.	3,055,565	2,298,146	.....	757,419
Cobble pavement, new	sq. ft.	17,385	1,157	.....	16,228
Cobble base on roads	sq. ft.	94,768	55,122	.....	39,646
Cinders hauled	ct lds.	10,671	7,691	.....	2,980
Ditches cleaned on roads and streets	lin. ft.	131,632	101,500	.....	30,132
Flags reset, including crossings where none existed	sq. ft.	78,631	42,309	.....	36,322
Flags set new, including existing crossings	sq. ft.	5,727	1,810	.....	3,917
Fencing repaired on fills	lin. ft.	223	120	.....	113
Grading	cu. yds.	16,498	2,780	.....	13,718
Gutter stone, relaid	lin. ft.	70,149	56,106	.....	14,043
Gutter stone, laid new	lin. ft.	36,337	10,383	.....	25,954
Gutter plates reset, iron	sq. ft.	424	1,423	999	.....
Gutter granolithic, repaired	lin. ft.	219	158	.....	61
Granite curb reset, 4½, 5 and 6 inches	lin. ft.	91,196	78,685	.....	12,511
Granite curb set, new 4½-inch	lin ft.	1,176	305	.....	871
Macadam (ordinary), repaired, "gabbro and gneiss"	sq. ft.	331,000	372,468	41,468	.....
Macadam (ordinary repaired, "gravel"	sq. ft.	58,691	22,066	.....	36,625

Classification.	Unit.	1910.	1911.	Increase.	Decrease
Macadam (ordinary) new, "gabbro and gneiss"	sq. ft.	13,324	7,825	.....	5 499
Macadam (bituminous), repaired	sq. yds	789	13,600	12,811	.....
Macadam (bituminous), new	sq. yds.	16,459	6,130	.....	10,329
Sheet asphalt pavement, repaired concrete (contract)	sq. yds.	4,567	2,803	.....	1,764
Sheet asphalt pavement, repaired, binder and topping (contract)	sq. yds.	26,806	26,646	.....	160
Slag block pavement, repaired (contract)	sq. yds.	798	5	.....	793
Vitrified block gutters laid, new, where other material existed	sq. yds.	445	.....	.....	445
Street refuse hauled	ct. lds.	25,483	21,272	.....	4,211
Terra-cotta pipe laid	lin. ft.	1,180	202	.....	978
Vitrified block pavement, repaired	sq. ft	25,632	48,254	22,622	.....

COMPARATIVE UNIT PRICES OF LABOR AND MATERIAL FOR DIFFERENT YEARS.

	1909.	1910.	1911.
Asphalt block, 4x4x12 and 3x5x12	$0.06½	$0.06½	$0.06½
Asphalt block, 4x5x12	0.07	0.07	0.07
Vitrified block, per 1,000, f. o. b. Balto., Md.	22.00	17.75	19.40
Vitrified block, per 1,000, delivered city yard.	26.40	19.75	21.40
Cobble stone, per perch	2.02	1.87	1.98
Standard gutters, per lineal foot	0.32	0.33	0.33
Hammer dressed gutters, per lineal foot	0.27	0.27	0.28
Four and one-half (4½) inch curb, per lineal foot	0.63	0.63	0.65
Flag stone, per square foot	0.35	0.35	0.35
Paving sand, per cubic yard	0.844	0.79	0.88

	1909.	1910.	1911.
Screened sand, per cubic yard	$0.924	$0.88	$1.02
Laying cobble stone, per square foot	0.035	0.039	0.04
Laying belgian block on sand base, per sq. foot.	0.039	0.039	0.045
Laying Belgian block on concrete base, including heating and pouring filler and gravel, per square yard	0.39	0.35	0.45
Resetting flag stone, per square foot	0.09	0.10	0.11
Redressing flag stone, per square foot	0.05	0.06	0.06
Resetting gutter stone, per lineal foot	0.035	0.04	0.04
Renewing (4½ in.) curb, per lineal foot	0.14	0.16	....
Resetting (4½-in.) curb, per lineal foot	0.11	0.14	0.14
Dressing (4½-in.) curb, per lineal foot	0.10	0.14	0.14
Resurfacing Macadam, per square foot	0.01	0.015	0.02
Repairing with old asphalt block on sand base, per square foot	0.043	0.053	0.053
Repairing with new asphalt block on sand base, per square foot	0.028	0.028	0 033
Paving new asphalt block on concrete base, including grading, per square foot	0.081	0.093	0.120
Repairing old vitrified block on sand base, per square foot	0.041	0.048	0.053
Paving new vitrified block on concrete base, including grading and concreting, per sq. foot	0.120	0.140	0.160
Paving new vitrified block on concrete base, grading not included, per square foot	0.043	0.040	0.050
Six (6) inch concrete base, not including grading, per square foot	0.016	0.017	0.018
Grouting new vitrified block, per square foot	0.002	0.003	0 003
Laying new vitrified block on sand base, per square foot	0.020	0.022	0.028
Paving new asphalt block on concrete base, grading not included, per square foot	0.035	0.040	0.044
Paving old Belgian block on concrete base with cement grout, per square yard	....	0.45	0.55

The wages of pavers and rammers was raised fifty (50) cents per day of eight (8) hours April 1st, 1911. The wages of stonecutters was raised fifty (50) cents per day of eight (8) hours May 1st, 1911.

THE TOTAL LABOR PERFORMED IN 1911, COMPARED WITH THAT OF 1910, IS AS FOLLOWS:

	Days			
	1910.	1911.	Inc.	Dec.
Foreman	4,461	3,354	.....	1,107
Assistant foremen	253	391	138	.....
Cobblestone pavers	9,509	6,778	.....	2,731
Belgian, asphalt and vitrified block pavers	3,210	5 013	1,803	.....
Rammers	8,171	6 411	.....	1,760
Carters	13,228	11,274	.....	1,954
Laborers	50,297	47,523	.....	2,774
Watchman	2,215	2,081	.....	134
Inspectors	706	632	.....	74
Blacksmith	313	291	.....	22
Blacksmith helper	311	291	.....	20
Stonecutters	1,756	1,236	.....	520
Teams and drivers, city wagons	775	801	26	.....
Teams, drivers and wagons (hired)	89	256	167	.....
Engineers (road rollers)	509	503	.....	6
Engineers (concrete mixers)	188	180	.....	8
Finishers (cement)	118	38	.....	80
Road rollers (hired)	71	17	.....	54
Hire of horse and cart	190	350	160	.....

STATEMENT OF EXPENDITURES.

REPAIRS OF ROADS AND STREETS, ETC.

Labor, as per pay rolls		$141,140 57
Asphalt Blocks—4x5x12 in., 197,300 block 4x4x12 in. 13,975 block 3x5x12 in., 38,750 block		17,238 13
Vitrified blocks, 142,887 blocks		2 804 83
Belgian blocks, 20,327 blocks		1,243 39
Cement, 8,022 bags		2,205 05
H. D. gutters, 10,384 ft. 3 in.		2,906 33
Sheet asphalt repairs		26,551 98
Flag stone, 894 square feet		313 07
Curb, 102 lin. feet		66 30

Crushed stone "gabbro," 3932.307 cubic yards	$9,142 93
Stone dust "gabbro," 503.807 cubic yards	840 37
Tools and hardware, etc	1,024 18
Steel and iron	515 86
Coal oil and gasoline	174 33
Paints, oils and brushes	144 24
Road gravel, 427.90 cubic yards	513 48
Advertising	222 44
Filler, 14,362 gallons	1,475 73
Filler, "Puritan Brand," 19,765 pounds	197 65
Cobble stone, 154.38 perches	281 11
Blacksmithing and new vehicles	230 90
Crushed stone "gneiss," 194.447 cubic yards	348 07
Coal	307 60
Hauling	12,607 72
Lumber	2,321 52
Pipe	59 95
Paving sand, 11,920.85 cubic yards	9,672 45
Screened sand, 449.00 cubic yards	443 80
Gravel, 1435.00 cubic yards	1,659 36
Hire of horse and buggy	27 00
Rent for lot	49 00
Road roller, one (1) five-ton roller	1,800 00
Paving Lanvale street	13,746 32
Paving Calvert street	8,847 77
Paving Guilford avenue	2,447 57
Paving intersection Dukeland, Glenolden and Claremont aves.	209 00
Paving Wilkens avenue	14 22
Inspection of sheet asphalt repairs	105 95
Inspection of bitumen	399 68
Repairs to Charles and 22nd streets	21 07
Repairs to Oak and 22nd streets	15 43
Repairs to Madison street	5 74
Repairs to Williams street	20 16
Building fence at Dead Run bridge	62 48
Paving blocks, 8000 block	96 00
Repairs to Clifton avenue and 15th street	41 10
Building fence on Franklin road	150 00
Refund in paving private alleys	115 15
Insurance on road roller	88 50

Adjusting manholes	$54 67
Setting concrete curb	189 10
Repairs to Stag alley	5 32
Freight and demurrage	262 54
Removing lamps	16 45
Hire of road roller	168 75
Miscellaneous	18 36
Street lines and plats	16 00
Repairs to road roller	596 97
Repairs to concrete mixer	126 66
Repairs to tar boiler	39 53
Removing gutters	73 63
Hire of plow	7 00
Curb iron	19 12
Sharpening tools	25 82
Tar kettle	11 55
Decorating booth for food show	160 00
Shot for rattler	79 92
Current for rattler	6 61
Repairs to rattler	8 09
Tape lines	16 50
Mounting Map	10 60
Toll	19 93
Bull pinion, one "T"	17 50
Survey stakes	12 50
Cross ties or earth retaining embankments	12 50
Hire of four (4) mule team	8 00
Red Flags	9 00
Removing night soil	2 50
Thermometer (1)	1 25
Levels	1 00
Trip to Havre de Grace, Md.	1 65
Castings	5 75
Blue Printing	3 20
Storage and supplies for automobile	107 14
Tires and tubes for automobile	90 97
Tire pump and shock absorbers for automobile	56 66
Repairs and supplies to automobile	85 63
Total	$267,257 19

SUMMARY:—COST OF STREET REPAIRS.

Class of Work.	Sq. Yds. Repaired.	Expended.	Average Cost Per. Sq. Yd.
Repairs asph. block pavements on sand base	22,626	$22,923 41	$1 03
Repairs asph. block pavements on concrete	2,340	3,235 98	1 70
Repairs vit. blk. gutters on asphalt block pavements	655	1,600 07	2 44
Repairs vitrified blk. pavements	3,024	2,908 02	0 96
Repairs vit. blk. gutters on sheet asph. pavements, including resetting and redressing curb	211	686 22	3 25
Renewal asphalt blocks on concrete base, formerly on sand base	5,590	17,375 47	*3 11
Macadam road repairs	50,317	26,021 26	0 52
Unpaved road repairs		583 06	....
Granite blk. pavements repaired	68,900	38,878 33	0 56
Old asphalt blocks paved on sand, formerly paved with cobble (new blocks)	45	79 57	1 78
(Old Blocks)	420	273 26	0 65
Renewal of granite blocks on concrete base, formerly paved on sand	505	948 52	1 88

*Including grading.

STATEMENT OF EXPENDITURES.

PAVING PRIVATE ALLEYS.

Labor, as per pay rolls	$1,576 61
Asphalt blocks, 5850 blocks	117 00
Advertising	132 09
Refunds	67 07
H. D. gutters, 64 feet 10 inches	17 50
Paving sand, 84 cubic yards	85 10
Screened sand, 4 cubic yards	4 00
Gravel, 115 cubic yards	127 96
Rubber boots	20 55
Hauling	10 00
Cement, 470 bags	143 50
Sewer pipes	52 32
Lumber	36 74
Frames and gratings	21 18
Plates, iron	9 00
Lowering water stop	33 50
Freight on Byerley asphalt	4 88
Total	$2 459 00

Assessments were made for paving private alleys, to abate nuisances, under orders from the Health Department, based on Ordinance No. 13, approved October 23rd, 1905.

ALLEY IN REAR OF 2700 TO 2718 WEST NORTH AVENUE. Revised assessment completed November 1st, 1911. Amount, $420.85.

ALLEY IN REAR OF 2301 TO 2305 CALLOW AVENUE. Assessment completed April 24th, 1911. Amount, $379.44.

ALLEY WEST OF ELLAMONT STREET, BETWEEN MORRIS AVENUE AND PRESBURY STREET. Assessment completed December 1st, 1911. Amount, $176.56.

ALLEY 69 FEET NORTHEAST OF STOCKHOLM STREET, BETWEEN SCOTT AND WICOMICO. Assessment completed May 29th, 1911. Amount, $837.68.

ALLEY IN REAR OF NO. 2900 TO 2964 CEDAR AVENUE, BETWEEN SISSON AND BEY STREETS. Assessment completed December 5th, 1911. Amount, $2,199.96.

VITRIFIED BLOCK AND FLAGSTONE FOOTWAY CROSSINGS LAID.

	Number.	Sq. Yds.
New vitrified block crossings on concrete base	10	225
New vitrified block crossings on sand base	68	472
Old vitrified block crossings on sand base	14	162
Old flagstone crossings on sand base	30	295
New flagstone crossings on sand base	1	33
Total	123	1187

Expenses:—Labor	$1,523 82
Material	583 84
Charged to:—Footway Crossings	$2,107 66

STATEMENT OF EXPENDITURES.

PAVING AND REPAIRING CROSS STREETS.

Labor, as per pay rolls		$23,601 79
Belgian blocks, 8172 blocks		514 20
Vitrified blocks, 14,886 blocks		288 79
Asphalt blocks:		
29,500 blocks, 4x5x12 inches		
35,000 blocks, 3x5x12 inches		
5,835 blocks, 4x4x12 inches		4,726 98
100 blocks, Hex		
70 blocks, Square		
Cement, 2003 bags		573 31
Paving sand, 1632.5 cubic yards		1,507 45
Screened sand, 74.5 cubic yards		89 40
Gravel, 393.5 cubic yards		504 06
Crushed stone, "Gabbro," 136.25 cubic yards		315 00
Stone dust, "Gabbro," 42.42 cubic yards		71 45
Crushed stone, "Gneiss," 6.78 cubic yards		12.48
Stone dust, "Gneiss," 3.57 cubic yards		4 07
Cobble stone, 10.5 perches		20 48
Excavating under tracks of United Rwys		107 81
Hauling		965 33
Sheet asphalt repairs		1,399 74
Flag stone, 1348.67 square yards		471 98
Adjusting manholes		34 10

Repairs to concrete mixer	$25 10
Rent for lot	35 00
Inspection of sheet asphalt repairs	29 04
Repairs to tar boiler	10 48
Coal, "Geo. Creek," 4 tons	17 40
Lumber	72 81
Advertising	6 93
Brick lifters and clamps, ½ dozen	14 50
Track torches, 10 torches	7 50
Hose, 167 feet ¾-inch	20 00
Batteries, 1 dozen	5 93
Gasoline, 45 gallons	4 08
Miscellaneous	9 83
Sewer pipe, 10 feet 8-inch	1 38
Castings, ½ dozen	4 04
Paving Patuxent Street	2,601 21
Concrete footway	287 44
Paving Rose Street	302 08
Paving Hollins Street	139 22
Paving Luzerne Street	145 98
Paving Courtland Street	283 31
Paving Hargrove Alley	196 36
Paving Linwood Avenue	338 94
Paving intersection Cleveland and Carey Streets	774 98
Repairing at Charles and 26th Streets	7 58
Tire tube, 1 tube	5 10
Top soil and sodding, Auchentoroly Terrace	1,155 41
	$41,710 05

EMERGENCY FUND.

The expenditures of this fund are briefly given below. Details of new paving under this fund are given elsewhere.

Webster Street, from Fort Avenue to Hyacinth Street, Vitrified Block Paving	$ 1,683 32
Monument Street, from Lakewood to Kenwood Avenues, Vitrified Block Paving	900 06
Fleet Street, from Luzerne to Glover Streets, Vitrified Block Paving	1,772 32
Barney Street, from Byrn to Johnson Streets, repairing pavement	481 14

Presbury Street, from Payson Street to Fulton Avenue, constructing macadam driveway	$724 73
Calverton Road, from Baltimore to Hollins Street, constructing macadam roadway	2,288 87
Saratoga Street, from Pulaski to Smallwood Streets, paving gutters	88 43
Pulaski Street, from Saratoga to Mulberry Streets, paving gutters	76 13
Fait Avenue, from Ellwood to East Avenues, repairing pavement	941 56
Robinson Street, North of Fait avenue, repairing pavement.	87 76
Friendsbury and Presstman Streets, paving gutters	51 47
Winchester Street, West of Fulton Avenue, second-hand asphalt block paving	490 16
Saratoga Street, from Little Sharp to Liberty Streets, asphalt block repaving	1,450 33
Montpelier Street, from Independent to Ellerslie Avenues, completing macadam pavement	841 88
Mine Bank Lane, from Federal to Oliver Streets, vitrified block paving	1,426 58
Marshall Street, from West to Ostend Streets. No work done. Expenses for advertising	6 93
Malster Avenue, from Mosher to McMechen Streets. No work done. Expenses for advertising	3 37
Gorsuch Avenue and Taylor Street, constructing retaining wall	251 66
Cambridge Street and Montford Avenue, photos	1 20
North Avenue Lot, Mt. Royal and North Avenues, material for Storage Warehouse	121 88
City Yard, East and Low Streets, material for Oil House	61 19
Automobile	1,500 00
Belgian Block purchased, 75,000 blocks	4,725 00
Total	$19,975 97

SHEET ASPHALT PAVEMENTS REPAIRED IN 1911.

Street.	From	To	Sheet Asphalt, Sq. Yds.	Slag Blk. Repaving, Sq. Yds.	Brick Paving, Sq. Yds.	Ordinary Cost, Repairs.	Cost, Private Paving.
Baltimore	Broadway	Chesapeake	1,637.03	.....	.....	$1,723 76	$ 194 09
Baltimore	Chesapeake	East Ave	194.59	.....	.....	178 15	45 63
Broadway	Canton Ave.	Preston	6,728.21	.....	.....	7,270 27	555 05
Broadway	Preston	North Ave.	605.06	.....	.....	650 76	47 45
Calvert	Read	Mt. Royal Ave.	2,038.84	.....	.....	2,240 50	142 72
Camden	Howard	Hanover	1,341.19	1.67	.....	889 66	886 62
Chase	Broadway	Calvert	2 462 54	.....	.....	2,479 73	474 92
Repairs	around	Cross St. Market.	132.52	.....	.....	108 50	57 75
Calvert St.	Bridge	.....	15.88	.....	.....	18 26	.....
Fayette	Calvert	North St.	213.35	.....	.....	54 69	270 81
Front	Baltimore	Gay	2,151.58	.....	.....	1,413 77	1,563 36
Fulton Ave.	Presstman	Penna. Ave.	828.61	.....	.73	734 03	197 60
Repairs around	City Hall	.....	833.44	.....	.....	578 98	466 05
Hollins	Carrollton Ave.	Poppleton	1,136 23	.....	.....	1,296 08	22 97
Lexington	Holliday	Harrison	1,842.28	.....	.....	1,825 33	354 02
Lexington	Calvert	North St.	45.84	.....	.....	52 72	.....
L. Montgomery	Sharp	Hanover	125.47	.....	.....	144 28	.....
Mt. Royal Av.	Cathedral	Guilford Ave.	488.93	.....	.....	532 58	35 54
Mulberry	Charles	Howard	130.72	.....	.....	152 60	.....
Repairs around	Lafayette	Market	636 33	.....	.....	438 91	395 72
Sharp	Pratt	Camden	210.38	.....	.....	185 89	65 06
St. Paul	North Av.	31st St.	1,606.26	.....	.....	1,476 04	374 17
Repairs around	Hanover	Market	76.06	.....	.....	43 39	60 38
St. Paul St.	Bridge	.....	823.81	.....	.....	947 38	.....
Thirty-first	St. Paul	Greenmount Ave.	11.36	.....	.....	.....	18 81
Repairs around	Richmond	Market	349.72	3.33	.....	361 65	48 95
			26,646.23	5.00	.73	$25,797 91	$6,217 67

Slag block repaving, 5.00 square yards	$1 27		25,797 91
Brick paving, 0.73 square yards	1 39		
			$32,015 58
Included in above	$2 66		
Amount retained from 1910 and paid in 1911			2,815 56
Amount expended in 1911 for sheet asphalt repairs			$34 831 14

SHEET ASPHALT SUMMARY.

Ordinary repairs on old concrete base	22,014.75	square	yards
Ordinary repairs on new concrete base	309 87	"	"
Private paving and inspection on old concrete base	1,827.75	"	"
Private paving and inspection on new concrete base	2 493.86	"	"
Total	26,646.23	"	"

Cost of ordinary repairs	$25,797 91
Cost of inspection at plant	94 17
Cost of inspection of ordinary repairs on streets	403 03
Cost of new vitrified block gutters paved on streets with sheet asphalt	686 22
Amount expended on maintenance of sheet asphalt pavements, 1911	$26,981 33
Cost of inspection of private paving on street	$99 57

MAINTENANCE TABLE, 1911.

STREETS UNDER GUARANTEE ARE NOT INCLUDED.

Kind of Pavement.	Total Area Sq. Yds.	Tl. Area Rpd. Sq. Yds.	Amount Expended	Cost per Sq. Yd. Tl. Area.	Per cent. of Tl Area Rpd.	Cost per Sq. Yd. for Area Rpd.
Asphalt block	398,352	25,621.0	$29,159 46	$0.0732	6 43	$1.1381
Granite block	814,562	68,899.9	38,878 33	0.0477	8.46	0.5643
Cobble	5,193,639	156,104.7	100,082 87	0.0193	3.00	0.6411
Macadam (ordinary)	998,000	43,836.0	23,781 39	0.0238	4.39	0.5425
Macadam (bituminous)	49,401	24,222.0	7,897 93	0.1599	49.03	0.3260
Sheet asphalt	274,689	22,325.0	26,981 33	0.0982	8.13	1.2085
Vitrified block	239,177	3,024.0	3,108 02	0.0130	1.26	1.0278
Cobble base on roads		5,009.0	2,034 64			
Unpaved streets			583 06			
Total			$232,507 03			

EXPENDITURES ON DIFFERENT CLASSES OF STREET WORK.

Class.	Maintenance.	Betterments.	New Constn.
Asphalt block	$29,159 46	$17,375 47	
Sheet asphalt	26,981 33		$73,646 17
Granite block	38,878 33	1,241 79	38,756 82
Vitrified block	3,108 02		80,869 60
Macadam	33,713 96		
Cobble	100,082 87		
Unpaved streets	583 06		
Totals	$232,507 03	$18,617 26	$193,272 59

PRIVATE PAVING AND INSPECTION.

The work under this heading includes the repaving over trenches opened by all City Departments; Public Service Corporations and Plumbers, on all streets not under a contractor's guarantee, except where a contractor has failed to comply with his guarantee when notified by this department to repair a cut. Upon his failure to comply, this department makes the repairs and charges the responsible party direct. This account also includes repairs, other than cuts to pavements under a contractor's guarantee, where the contractor holding the guarantee has failed to comply with a repair notice from the City Engineer, the cost thereof being charged to the contractor direct. It also includes all work for Public Service Corporations when such work is in connection with the work of this department, and a great amount of special work for private corporations and individuals upon their application in writing to this department.

The amount of work done under this account for the year 1911 amounts to $66,666.06. A total of 7,892 jobs was handled during the year, distributed as follows: 5,759 for the Water Department; 706 for the Electrical Commission; 190 for the Sewerage Commission; 230 for the Chesapeake and Potomac Telephone Co.; 988 for City Departments other than those mentioned, corporations and miscellaneous.

In addition to the above, the force employed to carry on this work made repairs to streets charged against appropriations of this department, classified as follows: Cobble Stone repairs, 145,928 square feet; Gutter relaid, 11,547 lin. feet; Belgian Block repairs, 138,047 square feet; Curb reset, 4,985 lin. feet; Flag Stone reset, 7,242 square feet; Asphalt Block sand base, 3,797 square feet; Vitrified Block sand base, 3,906 square feet; Cinders and Refuse hauled, 2,366 loads; Wood Block repaved, 67 square feet; Brick Footways, 160 square feet; New Gutter laid, 989 lin. feet; New Flag Stone set, 536

square feet; Concrete Gutter laid, 2,338 lin. feet; Iron Gutter Plates reset, 235 square feet. Cost: Labor, $19,270.18; material, $2,688.98.

In June an order was issued charging all Corporations or Individuals, other than City Departments, a new rate for the repaving of all improved streets, other than Macadam Pavements, opened by such corporations or individuals, a flat charge of six dollars ($6.00) per square yard. Macadam Pavements were charged for at the rate of three dollars ($3.00) per square yard. The following tables show the amount of work done under these rates.

The slight increase in the cost of labor per square foot in the following tables is due to the increase of wages of Pavers and Rammers in 1911.

All charges have been made against deposits or bills otherwise rendered for cost, plus ten (10) per cent. for use of tools and supervision.

STATEMENT OF EXPENDITURES.

PRIVATE PAVING AND INSPECTION.

Labor as per pay rolls	$44,252 67
Belgian Blocks, 19,000 blocks	1,828 81
Asphalt Blocks:	
4x5x12 inches, 2,530 blocks 4x4x12 inches, 6,500 blocks 3x5x12 inches, 45,050 blocks	3,527 85
Paving sand, 4906.5 cubic yards	3,638 87
Screened sand, 119.5 cubic yards	116 15
Gravel, 421.2 cubic yards	469 76
Vitrified block, 17,369 blocks	283 24
Sheet asphalt repairs	6,879 43
Cement, 1980 bags	587 01
Hauling	288 45
Wood block, 65,503 blocks	2,474 49
Freight on Metropolitan block	162 96
Crushed stone, "Gabbro," 246.29 cubic yards	618 69
Stone dust, "Gabbro," 9.06 cubic yards	14 95

Granolithic, "Gabbro," 3.00 cubic yards	$7 50
Rebates and refunds	290 17
Filler, "Puritan Brand," 12,275 pounds	122 75
Filler, "Fairfield," 260 gallons	23 40
Asphalt, "California," 5.105 tons	127 63
Cutting concrete (force account)	9 35
Curb iron bars	5 00
Total	$65,729 13
Credit	3,005 53
	$62,723 60

CREDIT MATERIAL PAID FOR 1911 AND ON HAND DECEMBER 31ST.

Asphalt Blocks, 3x5x12 inches, 858 blocks	$55 77
Asphalt Blocks, 4x4x12 inches, 227 blocks	8 75
Asphalt Blocks, 4x5x12 inches, 670 blocks	46 90
Metropolitan Paving Blocks, 13,558 blocks	362 68
Wood Block, 3x3½ inches, 12,563 blocks	442 22
Wood Block, 4x4 inches, 1,802 blocks	95 15
Block Filler, 7890 pounds "Puritan Brand"	78 90
Paving Garrett Alley, between Howard and Park Avenue; work not completed up to December 16th, therefore no bill rendered Baltimore Bargain House	1,915 16
	$3,005 53

MISCELLANEOUS.

Cobble repaved	44,862 sq. ft.
Header	21 lin. ft.
Gutter relaid	770 lin. ft.
Belgian block, sand bed	11,588 sq. ft.
Belgian block, concrete base	1,207 sq. ft.
Curb stone reset	301 lin. ft
Flag stone reset	187 sq. ft.
Cinders hauled	43 loads
Refuse hauled	535 loads
Concrete base	9,503 sq. ft.
Asphalt block, sand bed	1,240 sq. ft.
Asphalt block, concrete base	622 sq. ft.
Vitrified block, sand bed	4,281 sq. ft.
Vitried brick, concrete base	1,812 sq. ft.

Macadam resurfaced	2,253 sq. ft.
Wood block, sand bed	130 sq. ft.
Wood block, concrete base	882 sq. ft.
Concrete curb laid	153 lin. ft.
Tar macadam laid	257 sq. ft.
Concrete gutter	35 lin. ft.
Slag block, sand bed	873 sq. ft.
Sheet asphalt (contract)	250 51 sq. yds.
Vitrified block gutters	13 lin. ft.
Cost of above, including labor, material and per cent	$5,751 01

SUMMARY OF PRIVATE PAVING AND INSPECTION WORK.

	Square Yards Repaved.	Expended.	Average Cost Per Sq. Yd.
Granite blocks paved on sand	14,797	$7,864 96	$0.53
Granite blocks paved on concrete	629	735 04	1.17
Asphalt blocks paved on sand	2,177	4,449 20	*2.04
Asphalt blocks paved on concrete	1,155	2,914 93	2.52
Vitrified blocks paved on sand	1,147	969 32	0.85
Vitrified blocks paved on concrete	1,192	2,857 65	2.40
Wooden blocks paved on sand	26	80 79	3.11
Wooden blocks paved on concrete	1,536	4,610 99	3.00
Slag block paved on sand	159	128 45	0.81
Slag block paved on concrete	8	12 01	1.50
Sheet asphalt pavements repaired	3,179	4,949 84	1.56
Macadam roads repaired	2,122	1,451 49	0.68
Medina sand stone blocks repaved	5	6 30	1.26
Concrete curb constructed (96 lineal feet)		111 67	†1.16

*Partly grouted.
†Per lineal foot.

PAVEMENTS REPAVED UNDER PAVING RATES ESTABLISHED JUNE 16, 1911.

Class.	Area, Sq. Yds.	Amt. Deposited.
Asphalt block	162.2	$973 50
Sheet asphalt	14.5	86 90
Granite block	82.7	532 26
Sand stone block	2 2	13 20
Wood block	15.7	93 96
Macadam	54.8	187 94
Total	332.1	$1.887 76

PROPERTY AND STORAGE YARDS.

ROGERS AVENUE YARD.

The force at this Yard consists of the following: One (1) Superintendent, one (1) Assistant Superintendent, one (1) Clerk, one (1) Blacksmith, one (1) Blacksmith Helper, one (1) Emergency Wagon and one (1) Horse and Cart; an average of seven (7) Laborers were carried on the pay roll.

There was made in the Yard from January 1st to August 30th, 1911, when it was discontinued at the order of the City Engineer, 20,735 lineal feet of Concrete Gutter and 22,005 feet was distributed to various street work.

The Emergency Wagon and Yard force repaired 616 Dangerous Holes and Washouts; reported by the Police Department.

Lights were placed and maintained on 115 Emergency reports and turned over to other Foremen, Contractors and Departments.

There were 7,734 loads of material delivered from and 5,016 loads received at this Yard during the year 1911.

This Yard has furnished field parties of these Departments to assist in surveying, men to the amount of 71 days.

Men were sent to receive and tally Vitrified Brick, Wood and Belgian Block on the streets amounting to 106 days.

Foremen furnished for Emergency work 114 days.

Laborers were sent to outside foremen and carried on Yard pay roll to the extent of 49 days.

In addition the Laborers repaired and repainted Steam Rollers Nos. 1 & 2, 3 Two-horse Wagons, Water Wagons Nos. 1 & 2, Tar Boilers Nos. 1 & 2, 1 Dray rebuilt, Foundations for Two Concrete Mixers, Tool Boxes, Grout Wagon and small tools of all descriptions.

After deducting men furnished for outside work, the number of Laborers actually working in the Yard during the year averages three (3) per day.

STATEMENT OF EXPENDITURES.

MAINTENANCE OF PROPERTY YARDS.

Superintendent	$ 900 00
Assistant superintendent	717 50
Clerk	591 13
Lumber	162 58
Coal	58 35
Roofing and tar paper	32 85
Paving sand, 40 cubic yards	28 00
Gravel, 74 cubic yards	74 00
Cement, 412 bags	152 44
Paints, oils and brushes	4 05
Derrick iron	9 90
Gas for lighting office	13 07
Ice	10 44
Installing water supply	9 43
Removing night soil	10 00
Stove and pipes, etc	6 75
Iron pipe for blower	6 00
Gear for hand power	3 05
Grate, bibb and bar	2 27
Miscellaneous	50
Total	$2,792 31

GRADE ESTABLISHMENTS.

Grade establishments were made by the City Surveyor and filed in this department The amounts expended on this account were:

Amount of appropriation	$6,000 00
Received from applicants for establishments	637 49
	$6,637 49

Expended—

For establishments	$4,048 00
For advertising	549 97
Rebates	13 80
Total	$4,611 77

TESTS.

The usual physical tests of Cement and Vitrified Blocks used by the department were made and the results are on file.

Yours truly,

J. A. PAIGE,
Assistant City Engineer.

IMPROVED PAVEMENTS UNDER GUARANTY, JANUARY 1, 1912.

STREETS EXTENDED BY ANNEXATION — WIDTHS INCLUDED IN TOTAL AREAS

Street	From	To	Pavement	Feet in Length	Feet in Width	Square Yards	Price Per Yard: Railway Area	Price Per Yard: Outside Area	Contractor	Guaranty Expires
[illegible] alley	S C L Ramsay street	N B L Wilkens avenue	Vitrified blocks	221.0	12.1	304		$2 20	Thomas McLain	May 17, 1915
[illegible] street	S B L Lexington street	S B L Orleans street	Granite blocks	5.20	38.7	2 [illegible]	$3 45	3 45	P F Reddington	October 11, 1914
[illegible] street	[illegible] of N C L Wilkens Ave	S B L Chase street	Sheet asphalt..	945.0	30.0	3,871		1 71	W M Elder	September 16, 1910
[illegible] street	S B L George street	S C L Pratt street	Sheet asphalt	533.0	41.8	2,490		1 85	F E Schneider Paving Co	June 29, 1914
[illegible]'s Terrace	S C L Orem avenue	95 feet north	Sheet asphalt	1,656.0	38.0	7,372		1 74	Filbert Pav & Constr Co	November 30, 1914
[illegible] road	W B L Eagle street	W B L Charles street	Granite block..	37.0	38.0	1,035		3 50	W M Elder	August 24, 1910
[illegible] street..	N B L Baltimore street	N B L Fayette street	Filbertine.....	508.0	40.0	2,333		1 78	Filbert Pav & Constr Co	September 1, 1915
[illegible] avenue.....	S B L Gwynn avenue	Western city limits	Vitrified blocks	1,293.0	36.0	5,001	2 12	2 12	P Flanigan & Sons	October 21, 1914
[illegible] street	S B L Frederick Road	N B L Wilkens avenue	Bituthic	851.0	36.0	3,011		2 48	Warren Bros Co	October 21, 1914
[illegible] Place	S C L North avenue	S B L Pennsylvania avenue	Granite blocks.	411.0	21.5	929		3 10	F E Schneider Paving Co	August 7, 1913
[illegible] street	S B L Wilkens avenue	Bridge over Gwynns Falls....	Granite blocks.	620.0	39.1	2,695		3 25	Warren Bros Co	October 21, 1914
[illegible] street	N B L Twenty-fourth street	N B L Twenty-ninth street.	Vitrified blocks	1,393.0	36.0	5,997		2 15	Southern Mfg Co	January 10, 1912
[illegible] Street	S C L Columbia avenue	N C L St Peter street	Vitrified blocks	284.1	12.0	379		2 30	P F Reddington	October 18, 1914
[illegible] Street	S C L Lombard street	N C L Eastern avenue	Vitrified blocks	1,097.3	36.0	7,091		1 78	George Long Constr Co	September 22, 1914
[illegible] street	S B L Frederick Road	N B L Lombard street...	Vitrified blocks	805.0	39.6	4,149		2 25	W M Elder	March 31, 1912
[illegible] street	N B L. Columbia avenue....	S B L Pratt street	Granite blocks	2,027.4	39.6	9,245		3 33	P F Reddington	November 27, 1913
[illegible] Street	S B L Hoffman street.	N B L Oliver street ..	Wood blocks	438.0	18.0	2,030		3 18	U S Wood Pres Co	May 25, 1912
[illegible] street...	S B L Frederick Road ...	Southern city limits	Granite blocks	2,155.0	39.6	8,348		3 10	F E Schneider Paving Co	December 10, 1913
[illegible] street...	S B L North avenue...	S. C. L. Merrymans lane...	Bituthic	7,688.0	39.4 (168.0)	51,207		2 18	W M Elder	December 15, 1913
Chestnut avenue..	N B L First avenue	S B L Third avenue...	Vitrified Blocks	1,545.0	18.0	8,708		2 25	Gantz Construction Co	August 31, 1912
Chestnut avenue	N B L Third avenue	N B L Fourth avenue...	Vitrified blocks	581.0	30.0	2,592		2 17	P F Reddington	August 7, 1914
Chestnut Hill avenue..	E B L York Road	W B L Old York road..	Bituthic	503.0	18.0	1,021		2 25	W M Elder	August 7, 1914
[illegible] street..	S B L Orleans street	N B L Baltimore street ..	Sheet asphalt	1,253.3	44.0 (139.0)	6,060	[illegible]	1 85	F E Schneider Paving Co	October 26, 1914
Clifford street..	E C L William street ..	W. B. L. Riverside avenue....	Bituthic	436.0	36.0	1,808		2 28	Warren Bros Co	June 30, 1914
Clifton avenue..	E B L Eighth street	W B L Slingluff avenue	Bituthic	872.0	44.0	4,459		2 19	Warren Bros Co	December 5, 1913
Clifton avenue..	E B L Twelfth street	140 feet E. of E. B L 16th st..	Bituthic	2,032.3	39.6	8,946	3 25	2 15	Warren Bros Co	November 9, 1914 (b)
College alley...	N C L Pleasant street	S B L Mulberry street	Vitrified blocks	153.0	11.0	190		2 00	P Flanigan & Son	June 13, 1912
Conley street ..	N B L Baltimore street	S B L Fairmount avenue	Vitrified blocks	334.7	24.0	914		2 17	P F Reddington	April 20, 1914
Carrollton avenue	S B L Lanvale street	N C L Harlem avenue	Sheet asphalt..	377.0	38.1	1,067	1 05	1 74	W M Elder	September 12, 1916
Calvert street	Calvert Street Bridge.	S B L North avenue	Sheet asphalt..	1,245.0	30.0	5,079		1 15	F E Schneider Paving Co	September 30, 1916
Courtland street..	N B L Hamilton street	S C L Centre street	Vitrified blocks.	213.0	30.0	743		2 20	Filbert Pav & Constr Co	June 20, 1916
Cokesbury avenue	141 ft east of F C L York road	495 ft east and southward	Vitrified blocks	495.0	35.0 (39.0)	2,297		2 15	W M Elder	May 1, 1916
Cokesbury avenue...	N W B L Adams street..	300 ft northward	Vitrified blocks.	300.0	30.0	1,868		1 90	Const Engineering Co	December 2, 1916
Cleveland street	3 ft west of W C L Stockholm	W B L Carey street	Vitrified blocks	551.0	39.0	1,925			George F Beavin	October 24, 1916 (a)
Division street..	N C L Mosher street	S C L McMechen street.	Wood blocks..	350.0	36.0	1,455	3 83	3 73	U S Wood Pres Co	September 16, 1912
[illegible] street	C C L Homewood avenue.	W B L Ensor street	Sheet asphalt..	769.0	38.6	3,325		1 80	F E Schneider Paving Co	May 14, 1915
Edmondson avenue	E C L Second street	Gwynns Falls Bridge	Sheet asphalt	3,708.1	38.0 (166.0)	15,803		1 90	F E Schneider Paving Co	October 27, 1915
Edmondson avenue.	E C L Second street....	304 feet W. W C.L Seventh street	Granite blocks	2,784.0	In Ry. tracks	0.597	3 10		F E Schneider Paving Co	October 27, 1915 (b)
Edmondson avenue	W C L Fulton avenue.	P. B & W Ry over bridge	Sheet asphalt / Granite blocks	1,765.0	39.0	(1,668) (1,837)	(1 95) (3 64)	1 74	W M Elder	September 22, 1916
Eighth street	N B L North avenue	N B L Chilton avenue	Bituthic	772.0	39.0	3,738		2 34	Warren Bros Co	November 10 1913.
Fifth avenue	N B. L. Second avenue.....	S B L Fourth avenue	Bituthic	1,302.0	36.0	5,854		2 22	Warren Bros Co	September 23, 1913
Fisher street	S. B. L. Lamont avenue....	S. B. L. North avenue.....	Sheet asphalt	335.5	19.8	871		1 80	F E Schneider Paving Co	July 31 1914
Ellwood avenue..	N P L Fairmount avenue	S B L Fayette street	Vitrified blocks	405.0	36.0	1,624		2 10	Geo Long Contr Co	December 12 1916
Forest street	N C L Henrietta street	N C L Fremont avenue	Cobblestone / Granite blocks	772.0	53.0	(2,804) (946)		(0 45) (0 55)	McLean Contr Co	July 29 1913
Fifth avenue	W B L Cedar avenue	Wyman Park							F E Schroeder Paving Co	June 7, 1915 (a)
Fayette street ..	W C L Smallwood street	E C L Bentalou street	Vitrified blocks	350.0	39.9	1,508		2 22	P F Reddington	December 12, 1913
Fayette street	E B L Lakewood avenue	E city limits	Sheet asphalt	1,882.3	42.0	9,508		1 83	Filbert Pav & Constr Co	December 6, 1915
Fairmount avenue	W B L Kenwood avenue.	E city limits	Vitrified blocks	1,553.9	42.0	5,301	4 00	2 22	P F Reddington	July 8 1914 (d).
First avenue	W B. L. Cedar avenue ...	W B L Chestnut avenue	Vitrified blocks	442.0	48.0	2,240		2 25	Gantz Construction Co	August 31, 1912
Fourth avenue	E B L Ellis Road	E B L Hickory avenue	Granite blocks	330.0	36.0	1,320		3 35	Warren Bros Co	August 7, 1914
Fourth avenue	L B L Hickory avenue	W B L Chestnut avenue	Bituthic	1,314.0	36.0	5,220		2 24	Warren Bros Co	August 7, 1914 (c)
Fourteenth street	N. B L. Chfton avenue ...	S B L Windsor Mill road ..	Sheet asphalt	438.0	39.6	2,030		2 00	F E Schneider Paving Co	June 25, 1914
Franklin street....	W Gutter Eutaw street	W B L Pennsylvania avenue	Granite blocks	785.0	43.0	3,508	3 87	3 87	P F Reddington	July 22, 1913
Fremont avenue....	S Flag Pratt street ...	S B L Ridgely street ..	Granite blocks	1,732.0	(202.1) (38.5)	0.317	3 55	3 05	Maryland Pavement Co	October 6, 1913
Fremont avenue....	N. Flag Baltimore street ..	S Flag Lexington street.....	Granite blocks.	799.0	39.0	3,353	3 49	3 49	P F Reddington	December 11 1914
Fremont avenue	S Flag Baltimore street	N Flag Pratt street	Granite blocks	1,694.0	39.0	4,799	(3 74) (3 34)	(3 29)	W M Elder	December 24, 1910
Fulton avenue.....	S C L Baltimore street	N Flag Frederick avenue	Granite blocks	276.9	30.0	1,213		3 39	John C Leonard	May 14, 1914
Fulton avenue	S B L. Wilkens avenue.....	S Flag Frederick avenue	Vitrified blocks	1,742.0	39.0	7,910	2 10	2 07	W M Elder	July 24 1916
Garrett alley	W Flag Howard street	E Flag Eutaw street	Granite blocks	359.3	11.8	442		2 50	Thomas McLain	October 21, 1914
Garrison avenue.	New Liberty Road	N city limits	Sheet asphalt	4,440.0	40.0	23,035	3 15	1 90	P Flanigan & Sons	(g)
Garden street (Little)	N C L Ross street	S C L Monument street	Bituthic	201.0	12.0	238		2 25	Warren Bros Co	July 13, 1912
Glover street	N Flag Hudson street	S C L Fait avenue	Vitrified blocks	320.0	23.0	859		2 25	P F Reddington	July 10, 1912
Gorsuch avenue	E B L York Road	W B L Harford road	Bituthic	5,753.0	66.0	22,802	2 98	2 34	W M Elder	August 17, 1914 (d)
Gough street	E B L Broadway	E C L Patterson Park avenue	Sheet asphalt	2,532.0	42.0	10,862		1 89	Filbert Pav & Constr Co	April 30 1912 (c)
Gough street, intersection	on Wolfe, Chester, Covington and	Patterson Park avenue	Sheet asphalt			1,577		1 89	Filbert Pav & Constr Co	June 2, 1913
Greene street	S C L Lombard street	N Flag Pratt street	Wood blocks	391.0	39.0	1,695	3 18	3 08	U S Wood Pres Co	March 14, 1912
Grove street	N C L Fairmont avenue	S C L Fayette street	Vitrified blocks	433.0	24.0	1,187		1 80	Balto Contr & Wreck Co	August 31, 1915
Guilford avenue.....	N Flag Twenty third street	S C L Twenty fourth street	Sheet asphalt	338.0	36.0	1,351		1 10	Filbert Pav & Constr Co	September 30 1916
Glover street.....	S C L Foster avenue	N Flag Fait avenue	Vitrified blocks	328.0	24.0	875			George Long Contr Co	November 29 1916 (a)
Hargrove alley	N C L Preston street	S B L Mt Royal avenue.	Vitrified blocks	276.0	19.8	580		2 18	W M Elder	December 1 1914
Hoyt street	E C L Light street	E C L Johnson street	Bituthic	631.0	30.0	2,208		2 45	Warren Bros Co	June 30 1913
Hoffman street	E Flag Eden street	W B L Caroline street	Wood blocks	370.0	39.4	1,618		3 18	U S Wood Pres Co	May 13, 1912
Hollins street	W C. L. Calverton Road	E C L Wilkens street	Vitrified blocks	905.2	39.6	4,154		2 10	P F Reddington	June 30, 1915
Hollins street	E B L Poppleton street	Hatton's Gate	Vitrified blocks	602.0	18.0	1,204			Filbert Pav & Constr Co	September 29 1915 (a)
Hoyt street	N C. L. Fayette street....	S Flag Lexington street	Sheet asphalt	313.0	28.0	1,036		1 74	W M Elder	October 16 1911
Hollins street	E C L Garrison lane	W B L Catherine street	Vitrified blocks	643.0	39.0	2,786		2 07	W M Elder	June 1 1916
Hargrove alley	N B L Hamilton street	S C L Centre street	Vitrified blocks	227.0	20.0	470		2 20	Filbert Pav & Constr Co	July 27, 1916
Howard street	N C L. Henrietta street	N C L Cross street	Cobblestone / Granite blocks	795.0	53.0	(3,023) (693)		(0 45) (0 55)	McLean Contr Co	November 1, 1913
Hamburg street	E C L Howard street	W. B. L. Sharp street.....	Cobblestone ..	344.0	19.0	741		0 45	McLean Contr Co	November 1, 1913
Hamburg street	W C L Eutaw street	E B L Warner street	Cobblestone	344.0	19.0	724		0 45	McLean Contr Co	November 1, 1913
Intersection of Madison	St Paul and Calvert streets		Bituthic	66.0	38.3	140		2 48	Warren Bros Co	September 16 1914
Jefferson street	E B L Broadway	W C L Wolfe street	Wood blocks	868.0	36.0	3,458	3 30	3 18	U S Wood Pres Co	August 16, 1912
Koenig street	E B L Linden avenue	W B L Bolton avenue	Sheet asphalt	325.0	30.0	1,140		2 08	Filbert Pav & Constr Co	May 14, 1913
Lakeview avenue	N B L Whitelock street	Druid Hill Park			(See Robert avenue, same boundaries)					July 9 1913
Lakewood avenue	S C L Eastern avenue	N C L Caton avenue	Vitrified blocks	328.0	42.0	1,533		2 18	F E Schneider Paving Co	July 1 1913
Lakewood avenue	9 ft north of N C L Monument	S C L Madison street	Vitrified blocks	337	44	1,646			M J Burch	May 1 1911 (c)
Lanvale street	S C L Eutaw Place	W C L Linden avenue	Sheet asphalt	304.0	30.0	1,176		1 93	F E Schneider Paving Co	June 2, 1914
Lanvale street	E Flag Charles street	W Flag Greenmount avenue	Sheet asphalt	1,981.0	39.0	8,244		1 15	F E Schneider Paving Co	Oct 27 1915
Lemmon street	W C L Park avenue	E C L Bolton street	Bituthic	324.7	39.0	1,406		2 22	Warren Bros Co	August 17, 1915
Leonard street.	E B L Garrison lane ...	W B L Catherine street	Asphalt blocks	500.0	39.0	2,464		2 25	Maryland Pavement Co	June 27 1912
Leonard street..	E B L Catherine street	W B L Wilkens street	Vitrified blocks	192.0	36.0	853		2 20	P F Reddington	December 2 1912
Linwood street	S of east end C C L Hopkins Pl	S of W end W C L Hanover st	Granite blocks	400.0	36.0	1,733	3 04	3 89	W M Elder	June 2 1910
Lovegrove alley.....	N C L Preston street	S B L Mt Royal avenue	Vitrified blocks	270.4	19.0	582		2 35	P F Reddington	August 16, 1914
Lovegrove alley....	N C L Adams alley	S B L North avenue	Vitrified blocks	181.0	12.0	244		2 20	Thomas Mullin	July 3 1915
Linwood avenue	N B L Fayette street	S B L Philadelphia avenue	Vitrified blocks	97.0	44.0	488		12	M J Burch	April 3 1911
Linwood avenue	N C L Biddle street	S C L Preston street	Vitrified blocks	352.0	36.0	1,331		2 06	M J Burch	August 10 1911
Luzerne street	N C L. Federal street..	S B L Baltimore Cemetery	Vitrified blocks	213.0	42.0	1,034		2 02	M J Burch	May 21, 1911
Marion street	W C L Howard street	E C L Eutaw street	Granite blocks.	375.0	11.7	445		3 70	P Flanigan & Son	September 25 1913
Marion street	E C L Howard street	W B L Park avenue	Granite blocks	379.0	20.0	860		3 05	B. F. Sweeten & Son.....	September 5, 1915.
McCulloh alley....	N C L Biddle street	S C L Gold street	Vitrified blocks	353.8	14.0	577		2 20	P F Reddington	July 7 1914
Mulberry avenue	S B L Frederick avenue	N. B L. Wilkens avenue ...	Asphalt blocks	1,215.0	39.0	2,017		2 05	Maryland Pavement Co	July 31 1912
Mount Auburn avenue	W B. L. Auchentoroly Terrace	300 feet west	Sheet asphalt..	300.0	65.0	2,434		1 89	W M Elder	December 7 1914 (d)
Monroe street	N Flag Columbia avenue	Bridge over B & O R R	Granite blocks	1,833.3	39.6	8,170		3 75	P Flanigan & Son	August 21, 1914
Monument street	E B L Broadway	W C L Wolfe street	Wood blocks	868.0	39.4	3,791	3 30	3 18	U S Wood Pres Co	July 27, 1912

(a) Guaranty expires 1 year after completion of Sharp street bridge.
(b) Guaranty expires 1 year after completion of Edmondson avenue bridge.
(c) Guaranty expires 1 year after completion of Gwynns Falls bridge.
(d) Guaranty expires 1 year after completion of Fremont avenue bridge.
(e) Guaranty expires 1 year after completion of Fourth avenue bridge.
(f) Guaranty expires 1 year after completion of Fifth avenue bridge.
(g) Guaranty expires 1 year after completion of Garrison avenue bridge.

Lanvale street	E	Eutaw Place	W	Linden avenue	Sheet asphalt								
Lanvale street	E	Flag Charles street	W	Flag Greenmount avenue	Sheet asphalt	1,981.0	39.0	8,244			1.15	F. E. Schneider Paving Co	October 20, 1916
Lanvale street	W	C. L. Park avenue	E	C. L. Bolton street	Bitulithic	324.7	39.0	1,460			2.22	Warren Bros. Co	August 17, 1915
Lanvale street	E	B. L. Garrison lane	W	B. L. Catherine street	Asphalt blocks	560.0	39.6	2,494			2.25	Maryland Pavement Co.	June 27, 1912.
Lombard street	E	B. L. Catherine street	W	B. L. Wilkens street	Vitrified blocks	190.0	39.6	855			2.39	P. F. Reddington	December 2, 1912
Lombard street	3 ft. east of E	C. L. Hopkins Pl.	5 ft. W. of W	C. L. Hanover st.	Granite blocks.	400.0	39.0	1,753	3.04		3.50	W. M. Elder	June 12, 1916
Lovegrove alley	N	C. L. Preston street	S	B. L. Mt. Royal avenue	Vitrified blocks	270.4	20.0	582			2.35	P. F. Reddington	August 13, 1914
Lovegrove alley	N	C. L. Adams alley	S	B. L. North avenue	Vitrified blocks	180.0	12.0	244			2.20	Thomas Mullan	July 5, 1915
Linwood avenue	N	B. L. Fayette street	S	B. L. Philadelphia avenue	Vitrified blocks	97.0	42.0	455			2.12	M. J. Beach	April 3, 1916
Linwood avenue	N	C. L. Biddle street	S	C. L. Preston street	Vitrified blocks	352.0	36.0	1,301			2.06	M. J. Beach	August 19, 1916
Laverne street	N	C. L. Federal street	S.	B. L. Baltimore Cemetery	Vitrified blocks	213.0	42.0	1,054			2.02	M. J. Beach	May 23, 1916
Marion street	W	C. L. Howard street	E	C. L. Eutaw street	Granite blocks.	375.0	11.7	445			3.70	P. Flanigan & Sons	September 15, 1913.
Marion street	E	C. L. Howard street	W	B. L. Park avenue	Granite blocks	379.6	20.0	860			3.65	B. F. Sweeten & Son	September 5, 1915
McCulloh alley	N	C. L. Boom street	S	C. L. Gold street.	Vitrified blocks	353.8	14.0	577			2.20	P. F. Reddington	July 7, 1914
Mulberry avenue	S	B. L. Frederick avenue	N	B. L. Wilkens avenue	Asphalt blocks	1,215.0	20.0	2,917			2.65	Maryland Pavement Co	July 31, 1912
Mondawmin avenue	W	B. L. Arlington Terrace	800	feet west	Sheet asphalt	800.0	66.0	6,434			1.80	W. M. Elder	December 7, 1914 (t).
Monroe street	N	Flag Columbia avenue		Bridge over B. & O. R. R.	Granite blocks	1,833.3	39.6	8,170			3.65	P. Flanigan & Sons	August 21, 1914
Monument street	E	B. L. Broadway	W	C. L. Wolfe street	Wood blocks	868.0	39.4	3,701	3.30		3.18	F. S. Wood Pres. Co	July 27, 1912
Morton street	S	C. L. Centre street	N	C. L. Hamilton street	Vitrified blocks	224.8	12.0	302			2.18	D. V. Ault & Co.	July 21, 1915
North avenue	S	C. L. Payson street	E	Flag Druid Hill avenue.	Sheet asphalt	3,057.3	66.0	16,195			1.69	F. E. Schneider Paving Co	August 22, 1915 (d)
North avenue	W	S. Mt. Royal avenue	E	Flag Druid Hill avenue	Asphalt blocks	3,052.1	99.0	18,237			2.15	Maryland Pavement Co	November 20, 1912 (d).
North avenue	E	C. L. Payson street	E	B. L. Twelfth street	Bitulithic	0,850.0	60.0	47,331	3.20		2.23	Warren Bros. Co	June 30, 1914 (b).
North avenue	E	B. L. Washington street	W	C. L. Gay street	Sheet asphalt	1,734.0	60.0	12,137	2.08		1.99	Filbert Pav. & Constr. Co	January 28, 1914
Oak street	S	B. L. Twenty fourth street	N	B. L. Twenty sixth street	Bitulithic	1,000.0	39.6	4,542			2.23	Warren Bros. Co.	January 16, 1912 (b)
O'Donnell st. (S. side)	E	C. L. Kenwood avenue	W	C. L. Ellwood avenue	Vitrified blocks	1,171.7	30.0	4,150			2.18	P. F. Reddington	July 30, 1914
O'Donnell st. (N. side)	E	C. L. Kenwood avenue	E	B. L. Ellwood avenue	Vitrified blocks	1,222.0	30.0	5,405	2.09		2.09	M. J. Beach	July 15, 1916
Oliver street	E	B. L. Caroline street	W	B. L. Broadway	Sheet asphalt	840.0	39.0	4,000			1.74	W. M. Elder	September 8, 1916
Oliver street	W	B. L. Caroline street	Alley E.	Central avenue	Sheet asphalt	527.2	36.1	2,444			1.87	F. F. Schneider Paving Co	August 24, 1914
Ostend street	W	C. L. Race street	W	C. L. Hanover street	Vitrified blocks	403.5	39.2	2,108	2.22		2.03	D. V. Ault & Co.	July 5, 1915
Park Terrace	W	C. L. Madison avenue	E	B. L. Druid Hill avenue	Vitrified blocks	527.0	39.6	2,370			2.33	P. F. Reddington	May 31, 1912
Park Terrace	E.	C. L. Robert street	W	C. L. Park avenue	Vitrified blocks	585.0	35.0	2,338			2.09	P. F. Reddington	April 15, 1916
Park avenue		Flag Lexington street	N	Flag Fayette street	Granite blocks	353.6	26.1	1,318	3.72		3.72	P. Flanigan & Sons	October 23, 1914
Patuxent street	N	B. L. Canton avenue	S	B. L. East avenue	Vitrified blocks	812.2	36.0	3,609			1.94	George Long Contr. Co	December 24, 1915
Patuxent street	N	B. L. Philadelphia avenue	N	C. L. Jefferson street	Vitrified blocks	675.4	42.0	3,387				Frank Novak	March 25, 1912 (a)
Patuxent street	N	C. L. Lombard street	N	C. L. Eastern avenue	Asphalt blocks	1,733.0	42.0	8,216			2.28	Maryland Pavement Co.	June 24, 1912
Payson street	N	Flag Baltimore street	N	C. L. Fayette street	Sheet asphalt	479.1	38.8	2,219			1.99	F. F. Schneider Paving Co	July 12, 1914
Penhurst avenue	W	B. L. Garrison avenue	W	city limits	Vitrified blocks	1,172.0	36.0	4,718			2.05	P. Flanigan & Sons	December 12 1914 (l)
Pen Lucy avenue	E	B. L. Old York Road	W	B. L. Lowndes avenue	Vitrified blocks	688.0	16.0	1,322			2.14	W. M. Elder	October 29, 1914
Perry street	W	B. L. Light street	E	C. L. Charles street	Granite blocks	311.0	12.3	435			3.05	P. F. Reddington	August 11, 1914
Philadelphia avenue	E	C. L. Luzerne street	E	city limits	Vitrified blocks	2,311.0	30.0	10,784			2.10	George Long Contr. Co	October 13, 1915
Polk street	N	B. L. Gorsuch avenue	S	B. L. Carswell street	Bitulithic	200.0	30.0	704			2.24	Warren Bros. Co	June 19, 1914
Port street	N	C. L. Lafayette avenue	S	C. L. North avenue	Vitrified blocks	598.0	30.0	1,764			2.12	P. F. Reddington	July 6, 1915.
Pressman street	W	B. L. Fulton avenue	Old W.	Boundary	Sheet asphalt	1,161.4	39.5	5,280			2.07	Filbert Pav. & Constr. Co	October 12, 1914
*Remington avenue	N	B. L. Twenty ninth street	W	B. L. Cedar avenue	Sheet asphalt	2,670.0	{39.6 / 48.0}	12,740			1.74	F. E. Schneider Paving Co	June 7, 1915 (v).
Ridgewood avenue	W.	B. L. Garrison avenue	W	city limits	Bitulithic	1,252.0	36.0	4,795			2.20	Warren Bros. Co	August 25, 1914
Riverside avenue	N	C. L. Randall street	S	C. L. Hamburg street	Bitulithic	2,410.0	30.0	7,386			2.20	Warren Bros. Co	June 25, 1912
Robert avenue	N	B. L. Whitelock street.	Druid Hill Park		Vitrified blocks	880.0	39.6	3,930			2.20	F. E. Schneider Paving Co.	July 9, 1913
*Roland avenue	N	B. L. Third avenue	N	city limits	Bitulithic	3,349.0	{39.6 / 48.0}	10,935			2.18	Warren Bros. Co	September 30, 1912
Roland avenue	N	B. L. Third avenue	N	city limits	Granite blocks			5,146	2.55			Warren Bros. Co.	September 30, 1912 (j).
Ross street	W	C. L. Howard street	E	Flag Eutaw street	Bitulithic	363.0	18.0	701			2.25	Warren Bros. Co.	July 13, 1912
Rose street	S	C. L. Monument street	N	C. L. McElderry street	Vitrified blocks	394.0	24.0	1,007			2.17	P. F. Reddington	April 12 1916
Saratoga street	W	C. L. Monroe street	E	B. L. Payson street	Vitrified blocks	4,360.0	36.2	1,807				Thomas F. Locke	January 2, 1914 (k)
*Seventh street	N	B. L. North avenue	S	B. L. Clifton avenue	Bitulithic	707.0	38.7	3,364			2.34	Warren Bros. Co	December 10, 1913
*Smallwood street	N	B. L. North avenue	N	B. L. Herbert street	Vitrified blocks	175.0	39.6	843			2.30	P. Reddington & Sons	December 5, 1913
Stag alley	N	B. L. Marion street	S	C. L. Lexington street	Vitrified blocks	170.3	8.0	152			2.25	Thomas Mullan	September 13, 1914
St. Paul Street Plaza	N	B. L. Fayette street	S	C. L. Lexington street	Wood blocks	215.0	80.3	1,908			3.10	U. S. Wood Preserving Co.	September 28, 1912
Thirty-ninth street	N	C. L. University Parkway	W	C. L. Oak street	Macadam	870.0	89.0	4,901				P. F. Reddington	November 9, 1913 (a)
*Third avenue	W.	B. L. Chestnut avenue	E	B. L. Falls road	Vitrified blocks	1,502.0	{36.0 / 48.0}	7,810			2.25	Gantz Construction Co	August 31, 1912
Twelfth street	S	C. L. North avenue	S	B. L. Clifton avenue	Bitulithic	820.0	39.6	3,816	3.20		2.23	Warren Bros. Co.	October 21, 1914 (b).
Twentieth street	E	B. L. Charles street	W	B. L. St. Paul street	Asphalt blocks	384.0	39.0	1,752			2.20	Maryland Pavement Co.	May 15 1912
Twenty-second street	E	C. L. Oak street.	E	C. L. Cromwell street.	Bitulithic	3,178.0	39.0	14,669			2.25	J. L. Robertson	August 8, 1913 (o).
Twenty-fourth street	E	C. L. Barclay street	W	B. L. York road	Sheet asphalt	437.0	30.0	1,551			1.88	Filbert Pav. & Constr. Co	September 30, 1913.
*Twenty-fourth street	E	B. L. Maryland avenue	W	B. L. St. Paul street	Sheet asphalt	707.0	39.6	3,261			1.98	F. E. Schneider Paving Co	August 18, 1914 (l)
Twenty-sixth street	N	C. L. Eastern avenue	1153	Ft. North	Macadam	1,153.0	{24.0 / 30.0}	3,020			0.76	P. Flanigan & Sons	August 13, 1912 (In County).
Twenty-seventh street	E	B. L. Oak street	W	B. L. Calvert street	Bitulithic	1,290.0	39.0	5,810			2.20	Warren Bros. Co.	January 16, 1912
*Twenty-eighth street	E	B. L. Maryland avenue	W	B. L. St. Paul street	Bitulithic	700.0	39.6	3,103			2.10	W. M. Elder	May 14, 1913 (r)
*Twenty-eighth street	E	B. L. St. Paul street	W	B. L. Calvert street	Vitrified blocks	261.0	39.0	1,230			2.10	F. E. Schneider & Co.	December 31, 1912
Twenty-ninth street	E	B. L. Huntingdon avenue	E	B. L. Guilford avenue	Sheet asphalt	2,750.0	39.6	12,960			1.85	F. F. Schneider Paving Co	August 24, 1914 (m)
*Thirtieth street	E	B. L. Huntingdon avenue	W	B. L. Remington avenue	Sheet asphalt	392.0	39.0	1,522			1.74	F. F. Schneider Paving Co	July 15 1914
Thirtieth street	W	B. L. St. Paul street	E	B. L. Charles street	Sheet asphalt	358.0	39.6	1,608			1.85	General Pav. & Const. Co	August 26, 1913
*Thirty-first street	E	B. L. Charles street	W	B. L. York road	Sheet asphalt	2,183.0	39.6	9,109	2.08		1.78	W. M. Elder	September 7, 1912 (n).
Valley street	N	B. L. Gorsuch avenue	S	B. L. Carswell street	Bitulithic	200.0	30.0	705			2.21	Warren Bros. Co	June 19, 1914 (s)
Valley street	S	B. L. Chase street	N	C. L. Ashland avenue	Sheet asphalt	896.8	39.0	3,995			1.89	F. F. Schneider Paving Co	April 22, 1915
Walbrook avenue	E	B. L. Ninth street	W	B. L. Smallhill avenue	Bitulithic	1,347.0	38.6	5,861			2.19	Warren Bros. Co.	November 12, 1913.
Washington street	E	B. L. Taylor street	W	B. L. Harford avenue	Vitrified blocks	1,770.0	30.0	6,079			2.14	P. F. Reddington	December 5, 1913
Washington street	N	B. L. North avenue	Clifton	Park	Bitulithic	628.0	39.6	3,027			2.25	Warren Bros. Co	July 11, 1912
*Whitelock street	E	B. L. Linden avenue	W	B. L. Mt. Royal avenue	Bitulithic	2,005.0	39.6	9,508			2.18	Warren Bros. Co.	July 11, 1912
Wilhelm street	N	B. L. Warren avenue	S	C. L. Montgomery street	Bitulithic	327.7	19.2	1,838			2.28	Warren Bros. Co	June 14, 1914
*Wilkens avenue	Old W.	Boundary	S.	city limits	Sheet asphalt	4,200.0	{40.0 / 60.0}	15,382			2.15	W. M. Elder	September 23, 1913
Wilkens avenue	Old W.	Boundary	S.	city limits	Granite blocks.			9,119	3.45			W. M. Elder	September 23, 1913
Wilkens avenue	W	C. L. Fulton avenue	Old W.	Boundary	Sheet asphalt	2,529.0	{24.5 / 42.8}	9,492			1.72	F. E. Schneider Paving Co.	November 26, 1915
Wilson street	E	Flag Bolton street	W	B. L. Park avenue	Sheet asphalt	282.5	38.2	1,258			1.99	F. E. Schneider Paving Co.	June 2, 1914
Wolfe street	N	B. L. Monument street	S	B. L. Jefferson street	Sheet asphalt	833.3	41.8	3,871	2.15		1.86	Filbert Pav. & Constr. Co.	December 21 1914
Woodbrook avenue	S	B. L. Fulton avenue	N	Flag Clifton avenue	Asphalt blocks	354.0	36.0	1,497			2.10	Maryland Pavement Co.	May 23, 1912
*York Road	N	B. L. North avenue	N	city limits	Granite blocks	10,454.0	39.6	44,592			2.85	Gantz Construction Co	May 14, 1913
					Totals	183,049.0		830,585					

(a) Paved under private contract
(b) Granite blocks in railways area
(c) Except intersection of Roland avenue
(d) Cobble in railways area
(e) Except intersections of Wolfe, Collington, Chester and Patterson Park avenue.
(f) From Taylor to Valley paved with granite blocks, and railway area
(g) Guaranty expires, Liberty Heights to north city limits, February 15, 1914, Liberty Heights to Liberty road, November 24, 1914
(h) Omit intersection of Twenty fifth street
(i) Except intersection of Granada avenue
(j) Along and between tracks
(k) Paved for C. E. Spalding Co.
(l) Except intersection of Charles street
(m) Except intersections of Charles, St. Paul, and Calvert streets
(n) Except St. Paul street car tracks, Granite blocks in railway areas
(o) On cobble base
(p) Except from W. B. L. Charles street to W. B. L. Maryland avenue
(r) Except intersection of Charles street
(s) Formerly Harrison street
(t) Two driveways, 33 feet wide each, with parkway in center
(u) Under ordinance
(v) See Remington avenue and First avenue

REPORT OF

NEWTON M. GRAY, *Assistant City Engineer*

1911

Report of Newton M. Gray, Assistant City Engineer

1911

City Engineer's Office,

Baltimore, Md., January 1, 1912.

Mr. H. K. McCay, *City Engineer.*

Sir:—I beg to submit the following report, showing the operations of the Sewer Division of the City Engineer's Department during the year ended December 31, 1911:

SEWER IN TWENTIETH STREET AND GREENMOUNT AVENUE.

This sewer begins at Twenty-first street and extends southerly in Greenmount avenue to Twentieth street; thence easterly in Twentieth street to Homewood avenue, where it connects with the Jenkins Run sewer. It was originally planned to extend this sewer all the way in Greenmount avenue from Twenty-first street to, and connect with, the Jenkins Run sewer where it crosses Greenmount avenue, but on account of the underground structures in the intersection of North and Greenmount avenues, it was found impracticable to carry it out on this line without incurring considerable expense, and also inconveniencing, for some time, the Public Service Corporation—the United Railways and Electric Co.

The sewer consists of a 27-inch D. S. terra-cotta pipe for a distance of 368.12 feet, a brick curve, 30 inches in diameter, for a distance of 28.36 feet, and a 30-inch D. S. terra-cotta pipe for a distance of 669.58 feet, a total distance of 1,066.06 feet.

At the point where the pipe line connects with the Jenkins Run sewer, Twentieth street and Homewood avenue, it was necessary to construct a drop-well, owing to the depth of the sewer below the surface. It was necessary to make the depth of the trench (as shown on the profile) from ten to eleven feet six inches, on account of a 20-inch gas main in Twentieth street crossing Greenmount avenue, a 36-inch water main in Greenmount avenue and the sanitary sewers crossing Greenmount avenue, and in alleys between Twentieth and Twenty-first streets.

Two inlets were constructed in the northeast corners of Twentieth and Twenty-first streets, and the drainage from the inlets on the northwest and southwest corners of Twenty-first street was cut off from the old terra-cotta pipe line located in the east footway of Greenmount avenue and diverted into the new pipe line.

Five manholes were also built on the line of sewer.

Work was begun August 7, 1911, and completed December 31, 1911, with the exception of two inlets and a manhole at the northwest corner of Twentieth street and Greenmount avenue.

Total cost of work	$6,203.39
Total cost per lin. foot	5.819

Charge: Improvements in and Additions to the Drainage System.

SEWER IN LANVALE STREET, FROM CALHOUN STREET TO CARROLLTON AVENUE.

This sewer begins at Carrollton avenue and extends westwardly in Lanvale street to Calhoun street, where it connects with the brick sewer, 4 feet 6 inches in diameter, in said street. It consists of a 12-inch standard terra-cotta pipe for a distance of 229.25 feet; of a 15-inch double-strength terra-cotta pipe for a distance of 169.25 feet, and of an 18-inch double-strength terra-cotta pipe for a distance of 418.19 feet, a total distance of 816.69 feet.

Inlets, connected with chambers and manholes, were constructed at the N. E. corner of Carey street, the N. W. corner of Stockton street and the N. E. corner of Carrollton avenue. Grate inlets were also constructed at the N. E. corners of Woodyear and Stockton streets.

Work was commenced on May 11, 1911, and completed July 27, 1911.

Total cost of work..... $1,859.43
Total cost per lin. foot..... 2.276

Charge: Improvements in and Additions to the Drainage System.

SEWER IN EDMONDSON AVENUE, FROM PULASKI STREET TO MONROE STREET.

This sewer begins at Monroe street and Edmondson avenue and extends westwardly in Edmondson avenue to Pulaski street, where it connects with a stand-pipe leading to the sewer, 11 feet in diameter, in said street.

It consists of a 12-inch standard terra-cotta pipe for a distance of 244.63 feet; a 15-inch D. S. T. C. pipe for a distance of 243.97 feet, and an 18-inch double-strength terra-cotta pipe for a distance of 405.54 feet, a total distance of 894.14 feet.

Inlets, connected with chambers and manholes, were constructed at the N. E. corners of Payson, Appleton and Monroe streets. A grate inlet was also constructed at the N. E. corner of Brice street.

Work was commenced March 17, 1911, and completed May 10, 1911.

Total cost of work..... $1,767.25
Total cost per lin. ft..... 1.976

Charge: Improvements in and Additions to the Drainage System.

SEWER IN LAFAYETTE AVENUE, BETWEEN MILTON AND MONTFORD AVENUES.

ORDINANCE OF ESTIMATES FOR THE YEAR 1911.

This sewer, consisting of a 20-inch double-strength terra-cotta pipe, begins at the east side of Milton avenue and extends westwardly in Lafayette avenue to Montford avenue, where it connects with the 20-inch double-strength terra-cotta pipe in said avenue, a distance of 436.73 feet.

Inlets were constructed on the northeast and southeast corners of Port street and on the east side of Montford avenue.

A manhole was constructed on the east side of Port street.

Total cost of work..... $1,575.99
Total cost per lin. ft..... 3.608

Charge: Sundry Sewers.

RECONSTRUCTION OF HOWARD STREET SEWER.

ORDINANCE OF ESTIMATES FOR THE YEAR 1911.

The reconstruction of the sewer in Howard street, from a point about half-way between Cross and Hamburg streets to a point about half-way between Hamburg and Henrietta streets, was made necessary by the change in the grade of Howard street, from Cross to Henrietta streets.

The work is described as follows:

The upper half, or arch, of the sewer, between the points named, was removed to the springing lines. The side walls were then leveled off with cement and concrete, and upon them vertical concrete walls were constructed, and the sewer was then covered with reinforced concrete slabs resting upon the vertical walls described. The concrete walls and covering slabs were put in in sections of from 46 to 50 feet in length. Four inlets, connecting with the sewer, were constructed at the intersection of Howard and Hamburg streets.

Work was commenced April 24, 1911, and completed August 29, 1911.

Total cost of work..... $1,198.28

Charge: Sundry Sewers.

SEWER IN BARRE STREET, FROM LIGHT TO CHARLES STREET.

This is an 18-inch terra-cotta pipe sewer, built in Barre street, between Light and Charles streets. Connection was made at the northwest corner of Light and Barre streets with the existing sewer crossing Light street, and from thence continued in Barre street to the west side of Charles street, a distance of 476 feet.

Two manholes, with inlet connecting chambers, were constructed at the intersection of Charles and Barre streets; also, two inlets at the northwest and two inlets at the southwest corners of Charles and Barre streets.

Work was commenced June 17, 1911, and completed August 19, 1911.

Total cost of work	$1,433.29
Cost per lin. ft.	3.011

Charge: Improvements in and Additions to the Drainage System.

SEWER IN EUTAW STREET.

This is a 20-inch terra-cotta pipe sewer connecting with the existing sewer in Fremont avenue, and from thence extends in Eutaw street to Hamburg street, a distance of 372 feet. Three inlets and a manhole, with inlet connecting chamber, were constructed at the intersection of Eutaw and Hamburg streets.

This sewer replaces an existing 20-inch shallow sewer in Eutaw street, laid some time ago by the Baltimore & Ohio Railroad Co., which had to be taken up and relaid at a much greater depth on account of the lowering of the grade of Eutaw street, between Fremont avenue and Henrietta street.

The old 20-inch pipes were used in the construction of the new sewer.

Work was commenced March 25, 1911, and completed June 20, 1911.

Total cost of work	$2,112.63
Cost per lin. foot	5.679

Charge: Lowering Eutaw Street Drains.

SEWER IN HAMBURG STREET.

This is a 12-inch terra-cotta pipe sewer laid for the Baltimore & Ohio Railroad Co. under the south sidewalk of Hamburg street, between Howard and Sharp streets.

This sewer connects with the existing sewer at the intersection of Howard and Hamburg streets, and extends east in Hamburg street to the three-foot alley in the rear of the houses on the west side of Sharp street, a distance of 276 feet.

Five grate inlets were built along the line of this sewer.

Work was commenced July 1, 1911, and completed August 26, 1911.

Total cost of work	$669.90
Cost per lin. foot	2.427

Charge: Private Paving and Inspection. (Billed to B. & O. R. R. Co.)

SEWER IN HAMBURG STREET.

This is a 12-inch terra-cotta pipe sewer laid for the Baltimore & Ohio Railroad Co. under the south sidewalk of Hamburg street, between Eutaw street and China alley.

This sewer connects with the sewer in Eutaw street at the intersection of Hamburg street, and extends west in Hamburg street to China alley, a distance of 166 feet.

A manhole and grate inlet was built over the sewer at the intersection of the three-foot alley in the rear of the houses on the west side of Eutaw street, and an inlet at China alley and Hamburg street.

Work was commenced May 16, 1911, and completed June 21, 1911.

Total cost of work	$493.83
Cost per lin. foot	2.975

Charge: Private Paving and Inspection. (Billed to B. & O. R. R. Co.)

COMPLETION OF FOSTER AVENUE SEWER.

This sewer, which was constructed in the latter part of the year 1910, with the exception of readjusting the paving around the inlets, was completed in January, 1911. It is fully described in the City Engineer's report for the year 1910.

Total cost of work.....$43.43

Charge: Improvements in and Additions to the Drainage System.

EXTENSION OF SEWER IN UNIVERSITY PARKWAY.

This sewer was constructed in 1910 at a cost of $831.05, which amount was charged to Private Paving and Inspection for that year and billed to the Roland Park Company, they agreeing to advance the funds for the construction of the work.

The above amount was provided for in the Ordinance of Estimates for 1911 and refunded to the Roland Park Company.

Charge: Sundry Sewers.

SEWER IN FALLS ROAD.

ORDINANCE OF ESTIMATES FOR THE YEAR 1911.

This sewer, which was done under contract by N. A. Middleton & Co., contractors, consists of a 36-inch double-strength terra-cotta pipe, and was laid in the line of the ravine on the west side of the Falls road, from the north side at the center of the culvert under the Clipper Mill road, to the west side of the culvert under the Falls road, north of the Clipper Mill road, a distance of 431.10 feet. Of this, 11.32 feet was built of brick masonry in curve, with a radius of 7.5 feet, and covered with slabs of concrete.

As the line of this sewer was for the most part located upon private property, the right of way was first secured in

legal form from the abutting land owners—the Mount Vernon Company and Mrs. M. P. Carroll.

The excavation was almost entirely in hard rock, requiring the use of dynamite to loosen it. At the distance of 100.5 feet north of the Clipper Mill road a drop-well, with a cast-iron invert, three feet in diameter and ten feet long, was constructed of re-inforced concrete to a height of 6.5 feet. The top of this well was covered with a reinforced concrete slab, nine inches thick, upon which a brick manhole was built. The pipe was laid upon a rock bottom almost its entire length, and was backed up with concrete to the height of the springing line.

The contractors were under bond to complete the work in sixty working days, with a penalty of $15.00 per day for every day over and above the specified time, and to be paid a bonus of $15.00 for every day under the sixty working days. The contract price, lump sum, was $3,236.00.

The contract was executed on November 3, 1911, and work begun November 8, 1911, and completed December 19, 1911, in 32½ working days, leaving 27½ days to the credit of the contractors, for which they received a bonus of $412.50.

Total cost of work	$3,844.93
Cost per lin. foot, per total expenditure	8.918
Charge: Sundry Sewers	2,725.73
Improvements in and Additions to the Drainage System	971.23
Repairs to Sewers	147.97

RECONSTRUCTION AND REPAIR.

McMECHEN STREET SEWER.

The old wooden bottom in McMechen street, between Eutaw Place and Morris alley, for a distance of 100 feet, and in McMechen street, between John street and Park avenue, for

a distance of 97 feet, was removed and replaced by a pavement of granite blocks, laid in cement, and the side walls were pointed and plastered with cement.

Total cost of work.....$1,333.56

Charge: Repairs of Sewers.

SCHROEDER RUN SEWER.

The old wooden bottom between Lexington street and Arlington avenue, for a distance of 123 feet, was removed and replaced by a pavement of granite blocks, laid in cement, and the side walls were pointed and plastered with cement.

Total cost of work.....$786.64

Charge: Repairs of Sewers.

CHATSWORTH RUN SEWER.

The old wooden bottom in Myrtle avenue, between Franklin and George streets, for a distance of 141 feet, was removed and replaced by a pavement of granite blocks, laid in cement, and the side walls were pointed and plastered with cement.

Total cost of work.....$791.16

Charge: Repairs of Sewers.

INLET AND MINOR SEWER REPAIRS.

Under this head is included all work of repairs to inlets, or drains, or work incidental to such repairs, where the cost of such work did not exceed $100.00.

The cost of such work, during the fiscal year, was $5,031.69, and the number of locations at which work was done was 666, making the average cost per location $7.55.

Charge: Repairs of Sewers.

INLETS PROVIDED WITH SAFETY BARS.

Forty-eight (48) inlets were provided with safety bars, during the fiscal year, at a total cost of $149.71.

Average cost, per inlet.....$3.12

Charge: Improvements in and Additions to the Drainage System.

INLET MANHOLES.

Oval holes were cut in eighty-six (86) stone inlet covers, and castings fitted to the same.

The total cost of this work was $1,135.00, averaging $13.19 per manhole.

Charge: Improvements in and Additions to the Drainage System.

NEW INLETS, ETC., AND INLETS RECONSTRUCTED.

Under this heading was done all work in connection with inlets, or inlet connections that could be considered additional to or improvement in the system, as distinguished from minor repairs.

The total cost of this work was $9,350.52, and the number of locations, where such work was done, was forty-one (41), making an average cost of $228.06.

Charge: Improvements in and Additions to the Drainage System.

CONSTRUCTING NEW INLETS FOR COMMISSIONERS FOR OPENING STREETS.

New inlet, pipe, line and outlet at Poplar Grove and Mosher Sts.	$320.36
Two new inlets, northwest and southwest corners Poplar Grove and Presbury Streets	428.64
Total cost	$749.00

Charge: Private Paving and Inspection, account Commissioners for Opening Streets.

WORK DONE FOR PAVING COMMISSION.

Raising manhole on Hoffman street, between Bolton street and Linden avenue, and raising grate in alley east of Bolton street, north of Hoffman street..... $19.11

Charge: Private Paving and Inspection, account Paving Commission.

WORK DONE FOR HEALTH DEPARTMENT.

Cleaning and reconstructing part of brick drain, north side Lombard street, between Jones Falls and Albemarle street..... $81.62

Charge: Private Paving and Inspection, account Health Department.

WORK DONE FOR CORPORATIONS AND OTHERS.

Baltimore and Ohio Railroad Company—Remodeling two side inlets, northeast and southeast cors. Ostend and Ridgely streets, to conform to new grade.	$ 12 67	
Side inlet northeast corner Lancaster and Wolfe sts.	90 06	
New inlet, southwest cor. Eutaw and Henrietta sts..	207 22	
New inlet, north side Howard street, between Hamburg and Henrietta streets.....	43 99	
		$353 94
United Railways and Electric Company—Changing and reconstructing three manholes on Light street, between Barre street and Welcome alley.....	$ 19 72	
Grate inlet, southwest cor. Light and Lee streets.....	24 34	
Raising and changing two manholes—one at intersection Fremont avenue and Barre street, and other in front 921 South Fremont avenue.....	23 94	
Raising manhole, intersection Hamburg and Hanover streets	5 61	
		73 61
Dietrich Bros.—Closing side inlet and constructing grate inlet, southeast corner Bath and Davis sts..		51 88
Total cost of work.....		$470 43

Charge: Private Paving and Inspection, account above corporations and others.

All paving and repaving made necessary by the construction and repair of sewers and inlets during the year 1911 was

done by forces of the Street Repair Division, under the direction of Messrs. R. K. Compton and James A. Paige, assistant city engineers.

Statement showing the lengths in miles of the several kinds of storm-water sewers constructed by or under the supervision of the present City Engineer's Department and its predecessors:

	Miles.
Brick sewers	28.65
Stone sewers	6.25
Concrete sewers	1.76
Terra-cotta pipe sewers	15.38
Cast-iron pipe sewers	3.16
	55.20

Statement showing the total number of new inlets constructed, existing inlets reconstructed and trapped, old inlets repaired, inlet manholes put in and inlets provided with safety bars, from May 1, 1900, to December 31, 1911:

New inlets to existing sewers	504
Inlets reconstructed and trapped	81
Old inlets repaired	5,105
Inlet manholes put in	1,122
Inlets provided with safety bars	1,701

RECAPITULATION.

	Sundry Sewers.	Improvements in and additions to the Drainage System.	Repairs of Sewers.	Private Paving and Inspection.	Lowering Eutaw Street Drains.	Paving Fremont Avenue.	Total.
Sewer in Twentieth street and Greenmount avenue		$6,203 39					$6,203 39
Sewer in Lanvale street		1,859 43					1,859 43
Sewer in Edmondson avenue		1,767 25					1,767 25
Sewer in Lafayette avenue	$1,575 99						1,575 99
Reconstructing Howard street sewer	4,198 28						4,198 28
Sewer in Barre street		1,433 29					1,433 29
Sewer in Eutaw street					$2,112 63		2,112 63
Sewer in Hamburg street				$669 00			669 00
Sewer in Hamburg street				493 83			493 83
Completion of Foster avenue sewer		43 43					43 43
Exptension of sewer in University Pky.	831 05						831 05
Sewer in Falls road	2,725 73	971 23	$147 97				3,844 93
McMechen street sewer			1,333 56				1,333 56
Schroeder Run sewer			786 64				786 64
Chatsworth Run sewer			791 16				791 16
Inlet and minor sewer repairs			5,031 69				5,031 69
Inlets provided with safety bars		149 71					149 71
Inlet manholes		1,135 00					1,135 00
New inlets, etc., and inlets reconstructed		9,345 83				$4 69	9,350 52
Constructing new inlets for Commissioners for Opening Streets				749 00			749 00
Work done for Paving Commission				19 11			19 11
Work done for Health Department				81 62			81 62
Work done for corporations and others				479 43			479 43
Material on hand at property yard		1,128 44	1,200 00				2,328 44
Total	$9,331 05	$24,037 00	$9,291 02	$2,492 89	$2,112 63	$4 69	$47,269 28

Sundry Sewers—

Appropriation	$ 9,331 05
Expended	9,331 05

Improvements in and Additions to the Drainage System—

Appropriation	$24,000 00
Wages returned	37 00
Total	$24,037 00
Expended	24,037 00

Repairs of Sewers—

Appropriation	$10,000 00
Wages returned	3.00
Total	$10,003 00
Expended	9,291 02
Balance	$711 98

Statement showing the total expenditures under each appropriation, including salaries, in the Sewer Division of the City Engineer's Department for the year 1911:

Sundry sewers	$ 9,331 05
Improvements in and Addition to the Drainage System	24,037 00
Repairs of sewers	9,291 02
Private paving and inspection	2,492 89
Lowering Eutaw street drains	2,112 63
Paving Fremont avenue	4 69
Salaries	5,820 00
Total	$53,089 28

MACHINERY IN CHARGE OF THE SEWER DIVISION ON HAND JANUARY 1, 1912.

Item.	Bought.	Cost.	Repairs, 1911.	
1 Edson No. 3 Diaphragm Pump, with 15 feet of 3-inch suction hose	April 8, 1905	$47 25		In good order.
1 Rumsey Centrifugal Pump, with 12 H. P. Fairbanks vertical gasoline engine, mounted on wheels	July 22, 1907	499 00		In good order, bought from Bridge Div.
1 Horizontal Knowles Pump	About 17 years ago			Unserviceable.

Respectfully submitted,

NEWTON M. GRAY,

Assistant City Engineer.

REPORT OF

FRANK H. BEALL, *Chief Inspector*

1911

Report of Frank H. Beall, Chief Inspector

1911

Department of Public Improvements,

Sub-Department of City Engineer.

Baltimore, March 22, 1912.

H. K. McCay, Esq., *City Engineer.*

Dear Sir:—I hereby respectfully submit a synopsis showing work performed during the year of 1911, in the city's streets by the corporations, contractors and individuals, on permits issued on this department, over which this Sub-Division of inspectors had supervision and control.

During the year 1911, 6.85 miles of private sewers have been laid, and 839 buildings connected therewith.

The Chesapeake & Potomac Telephone Co. increased their underground conduit system during the year to the extent of 6.97 miles, exclusive of approximately three miles which had been laid in turnpike roads, which will be charged in our report to the Comptroller for the fiscal year ending October 31st, 1912.

Paving over the trenches opened by them was restored by the employes of this Department, at the expense of the Company. All of their work requires rigid inspection to insure exact compliance with plans as approved.

The Consolidated Gas Electric Light and Power Company laid 10.28 miles of new mains and 25.69 miles of new service pipe, with a total increase over 1910 of 8 miles.

The United Railways and Electric Company did a large amount of repairs and renewals to their tracks and structures

during the year. They constructed double railway tracks, under Ordinance No. 575, on Light street, from Baltimore to Lee street. This work was all done under the supervision of this Department, as required by ordinance and permits governing such cases.

The Baltimore and Ohio R. R. Co. laid 17 new sidings and one additional track across Ridgely street, and one additional track in Howard street, all of which had been authorized by ordinance, under the supervision of this Department. They also did the usual amount of repair work to their tracks and structures in the streets.

The Maryland Electric Railways Co. constructed, under Ordinance No. 660, 9,120 feet of rail in Fremont street and in Hamburg street, exclusive of the rail laid on the new overhead crossing. They also constructed a considerable number of inlets with drain connections, due to this track work, all under the supervision of this Department.

The Northern Central Railway Co. constructed one siding, under Ordinance No. 639, and did a considerable amount of repair work to their track and structures in the streets, under our supervision.

The Philadelphia, Baltimore and Washington Railroad Co. constructed one siding, under Ordinance No. 651, and also changed its tracks across Lafayette avenue, under permit No. 99761, under our supervision.

The blasting on 61 permits was supervised by this Department.

Supervision was had over the work of the Baltimore Heating and Refrigerating Co., which constituted mainly repairs to steam service pipes, and five new connections.

The Baltimore and Annapolis Electric Railway Co. did about the usual amount of repairing to their tracks and structures in the city streets.

The various electrical companies trimmed, under our supervision, 2,225 trees in the city streets.

Considerable inspection was had on permits issued for work of a miscellaneous character.

The number of telephone, telegraph, electric light, and trolley poles in the streets of the city at this end of the year was 22,474 (prior reports have not included trolley poles, which are handled under our supervision); of these, 8,822 are subject to pole tax; 1,849 are fire-alarm and police telegraph poles; 2,577 belong to public service corporations, but are exempt from pole tax on account of the companies allowing the poles to be used for city lights, and 9,226 trolley poles, which are also exempt from pole tax.

Respectfully submitted,

FRANK H. BEALL,
Chief Inspector.

REPORT OF

JOS B. MAGUIRE, *Chief Inspector of Footways*

1911

Report of Jos. B. Maguire, Chief Inspector of Footways

1911

Department of Public Improvements,

Sub-Department of City Engineer.

Baltimore, January 1st, 1912.

H. K. McCay, Esq., *City Engineer.*

Dear Sir:—I beg to submit the following report showing the work done and the cost of same in the Footway Inspectors division of this Department for the year 1911.

The report includes the cost of repairs by assessment, paving private footways in front of city property, private paving and inspection and to miscellaneous footways due to the resetting of curb, change of grades and to footways which were in good order prior thereto; the number of water stops and street washers lowered, improved driveways constructed, dead and dangerous trees removed from footways, also the number of inspections made concerning footways, damage and accident suits investigated, drainage put under footways, footway notices sent to property owners, and those pertaining to the Burnt District. Many new concrete footways were laid throughout the entire city, due to the resetting of curbs and the paving of a number of streets with improved material.

FOOTWAY REPAIRS.

A number of footways were repaired by the city forces of this division of the Department where the property owners failed or neglected to comply with the notices served upon

them to have the work done as ordered, and an assessment showing cost of same was sent to the Tax Collector for collection.

Footway repairs were also made around poles, and where poles were removed by the various telephone and telegraph companies throughout the city, and bills were rendered accordingly.

An improvement in footways throughout the entire city is shown by the fact that only three damage suits were entered and two claims were made against the city for alleged accidents on footways. Many of these cases have no merit in them whatever, and several have been decided in favor of the city on account of contributory negligence on the part of the plaintiff.

FOOTWAY DRAINAGE.

The number of drains put under the footway by property owners during the year was 2,204 and the number constructed by this division of the Department was 11, making a total of 2,215.

FOOTWAY NOTICES.

The number of footway notices sent to property owners during the year were 10,983 (which is an increase of 1,189 over the year 1910), a major portion of which were complied with.

FOOTWAY REPAIRS.

Footway repairs were made by this division of the Department on default of 17 property owners who failed or neglected to comply with the notices sent them from the City Engineer, and the cost of the work was $328.00. Of this amount $321.26 was charged to the account of "Paving Private Footways" and $6.74 was charged to the account of "Roads, Streets,

etc." There were 2,817 square feet repaired, paved or repaved on account of these assessments, and the cost per square foot was:

For material	$0.0285
For labor	0.0531
Total	$0.0816

Repairs were made throughout the city due to resetting of curbs, change of grades and to footways which were in good order and condition prior thereto.

The cost of said repairs was $515.76. This amount was charged to the account of "Roads, Streets, etc." The total square feet on account of these repairs was 8,515, and the cost per square foot was:

For material	$0.0138
For labor	0.0494
Total	$0.0632

PAVING IN FRONT OF CITY PROPERTY.

Repairs were made to footways around the various City parks, squares, school houses, engine houses, libraries, etc., and the cost was $1,063.57. This amount was charged to the account of "Paving in front of City Property" and "Paving and Repaving Cross Streets." The total square feet on account of these repairs was 16,112 and the cost per square foot was:

For material	$0.0121
For labor	0.0521
Total	$0.0642

New footways were laid in front of City property; bids were received from a number of contractors, and the work was awarded to the lowest responsible bidder; 19,991 square feet were laid, at the average cost of eleven cents per square foot for the total sum of $2,161.86.

PRIVATE PAVING AND INSPECTION.

Repairs were made to footways throughout the city, upon orders from private parties, and the various telephone and telegraph companies in the removal and planting of poles under permits from this Department. The number of footways repaired was 686 and the total cost was $892.47.

PAVING TWENTY-FOURTH STREET.

(Ordinance No. 420.)

Footways on both sides of Montebello avenue, from Cokesbury avenue to Bartlett avenue, were repaved by this division of the Department, due to a change of grade having been made in paving Cokesbury avenue, which caused the footways to become eight to ten inches below grade, and requiring a fill of ninety-eight cubic yards of earth in order to bring them to the proper grade. The alleyways and yards connected with the houses abutting on said street at the points mentioned had to be raised accordingly that the drainage would run off properly through pipes which were put under the footways. All old brick taken out of these footways were used, if in good condition, and relaid. The cost was $329.34.

This amount was charged to the account of "Paving Twenty-fourth Street," Ordinance No. 420.

The total square feet repaved on this account was 5,641 and the cost per square foot was as follows:

For material	$0.0147
For labor	0.0439
Total	$0.0586

PAVING EDMONDSON AVENUE.

(Ordinance No. 590.)

The footways on both sides of Edmondson avenue, from Pulaski street to Philadelphia, Washington and Baltimore Railroad Bridge, were repaved on account of change in grade

in repaving said street with improved material. The total cost was $134.52.

Of this amount $91.40 was charged to the account of "Paving Edmondson Avenue," Ordinance No. 590, and $43.12 was charged to the account of "Paving and Repaving Cross Streets" and "Paving in front of City property."

The total square feet on this account was 3,306, and the cost per square foot was:

For material	$0.0071
For labor	0.0322
Total	$0.0393

BURNT DISTRICT.

Sixteen vacant lots in the Burnt District were improved during the year by the erection of new buildings thereon, and the footways were paved with concrete. A number of other lots are now being improved, and concrete will be laid when they are completed. The total number of new concrete footways laid in the Burnt District this year was twenty (20), and the total number of vacant lots therein is thirty-one.

FOOTWAY INSPECTORS' REPORT.

Water stops reported to the Water Department	76
Water washers reported to and lowered by property owners	5
Surface drains across footways put under same	2,215
Improved driveways constructed by property owners	102
Dead and dangerous trees removed by property owners	39
Inspections made concerning footways	2,083
Accident and damage suits investigated	5
Footway notices sent to property owners	10,983
New concrete footways laid in Burnt District	19

In addition to above, many calls were made in person by the Inspectors upon property owners or their agents, wherever

footways were in a dangerous condition, and required quick action to prevent accidents and possible lawsuits against the City.

FOOTWAY INSPECTORS.

No changes were made in the Footway Inspectors of this division of the Department during the year, and they are as follows:

William S. Wood,	J. Edward Beahan,
L. Herbert Chaney,	David D. Porter.

In conclusion would say, that during the winter months a number of footways are in need of repair due to constant rains, thaws, ice, etc., and I would urge the police to report all such footways, irrespective of weather conditions, that notices may be served upon property owners to make such repairs that will place the footways in a good and safe condition until a time when weather permits of permanent repairs. If this is done the City and property owners will be saved from probable lawsuits.

Respectfully submitted,

JOSEPH B. MAGUIRE,
Chief Inspector of Footways.

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REPORT

OF THE

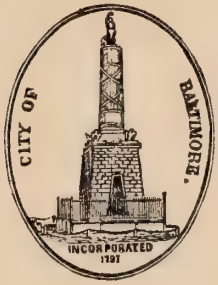
CITY LIBRARIAN

TO THE

Mayor and City Council of Baltimore

FOR THE

YEAR ENDING DECEMBER 31, 1911



BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

City Librarian's Report.

BALTIMORE, December 31, 1911.

To the Mayor and City City Council of Baltimore.

GENTLEMEN:

The volume of work done by the City Library during 1911 was greater than that of any previous year. The whole period was filled with activity and the small library force was almost daily compelled to work overtime.

It may be interesting here to note that approximately 12,000 orders for supplies were received from various departments during the year, and were accordingly filled. The detail work necessary to the proper conduct of the purchasing feature of this Department is extensive, but is so systematized that the machinery runs very smoothly.

It is a matter worthy of note, too, that though hundreds of bills, representing thousands of purchases, were sent to the Comptroller, not even a minor error was discovered. It is not to be inferred from this statement that errors are expected or that they are condoned, but in the volume of detail work such as passes through the City Library it is a matter of congratulation that the human machine worked so perfectly.

There was expended for supplies, etc., as above explained, $27,947.17. Of this amount, $21,504.02 was charged against the City Library appropriation of $22,715, leaving a surplus of $1,210.98; $6,443.15 was spent by the City Library, but paid by the several departments that had funds against which such charges could be made; the whole, as stated, representing a grand total of $27,947.17 for all departmental printing, blank books, stationery, etc.

LIBRARY WORK.

Strictly library work has been particularly interesting, and the Department has developed into an institution, at once, unique, and judging from the number of persons who use it, of much practical value. There is a great field for a library that specializes in Baltimore and Maryland matters, and the City Library aims to cover that field. This does not mean merely the assembling of publications; that is a routine incidental. What the City Librarian is endeavoring to do is to make his Department a storehouse of information concerning the City and State. This necessitates a knowledge of history, an appreciation of the value of records (for the City Librarian is a custodian of records as well as other things); an understanding of plats and the ability to read them intelligently; research work, and coupled with this, a determined policy to possess everything obtainable that will add to the store of knowledge of Baltimore and Maryland. The scope of the City Library is not limited to matters purely historical, but includes data on financial, commercial, industrial, social and economic conditions, and a multiplicity of things concerning each of which a large number of persons in the community are interested.

Nor are investigators confined to Baltimoreans. It is surprising how many out-of-town persons come to the City Library for information. Sometimes it is an individual, sometimes a commission representing another municipality, but almost daily, visitors from other localities call to study Baltimore. Baltimoreans have acquired the habit of referring visitors to this Department. This is, as it should be, and it is a boast of the City Librarian that all are courteously received, and in no instance during the year has data been lacking upon the multiplicity of matters concerning which inquiries were made.

PICTORIAL COLLECTION.

The collection of historical prints and pictures has grown to such an extent that nearly all the available space in the corridors on the third floor of the City Hall has been utilized. Some exceedingly interesting, and in several instances, rare specimens were received during the year. Books of exceptional value have also been acquired, and the Department now is in better condition than ever before.

An index of the ordinances and resolutions was completed during the year and reports of many municipal and State departments, private institutions (hospitals, schools, etc.) were added to the files and indexed. Hundreds of questions relating to Baltimore history, laws, ordinances, etc., were answered.

The City Library is a United States Government Depository, and consequently received all publications that emanated from the Government Printing Office. The library attaches have been very busy with this particular branch.

Under direction of the Mayor, the City Librarian has compiled "The Baltimore Book," which gives a resume of the industrial and commercial advantages of Baltimore, municipal activities, etc. This work will come from the press early in 1912.

WILBUR F. COYLE,
City Librarian.

FINANCIAL STATEMENT

EXPENSE ACCOUNT.

DEPARTMENTS.	Stationery.	Printing.	Blank Books.	Miscellaneous.	Total.
Appeal Tax Court	$139 62	$158 22	$416 99	$31 00	$745 83
Board of Fire Commissioners	706 21	1,392 59	1,160 66	14 10	3,273 56
City Collector	219 21	805 32	681 92	13 65	1,720 10
City Comptroller	53 65	134 19	60 50	14 75	263 09
City Engineer	440 15	521 50	436 73	9 00	1,407 38
City Jail	151 51	66 94	65 10	.....	283 55
City Library—Purchase of pictures; framing; boys' services; new books; binding; repairing maps, etc.	72 77	458 62	49 25	1,854 50	2,435 14
City Register	114 85	292 74	484 81	2 75	895 15
City Solicitor	255 95	69 69	2 85	.....	328 49
Commissioner of Health	503 65	2,596 91	1,359 50	207 50	4,667 56
Commissioners for Opening Streets	43 05	29 30	104 65	1 25	178 25
Commissioner of Street Cleaning	128 84	179 53	.....	.....	308 37
Department Legislative Reference	32 74	15 49	.....	.....	48 23
Free Public Bath Commission	62 37	190 16	14 57	.....	267 10
Harbor Board	60 78	39 39	.....	.....	100 17
Inspector of Buildings	167 53	76 27	325 87	.....	569 67
Mayoralty	125 94	112 92	4 50	13 00	256 36
School Board	.....	1,918 57	564 35	.....	2,482 92
Supervisors of City Charities	288 28	498 16	98 50	75	885 69
Sup't of Lamps and Lighting	42 61	144 09	46 85	.....	233 55
Sup't of Public Buildings	12 82	19 00	8 25	.....	40 07
Topographical Survey	154 81	26 36	.....	.....	181 17
	$3,777 34	$9,745 96	$5,885 85	$2,162 25	$21,571 40
					*67 38
					$21,504 02

*Less refund by deduction made from T. A. Biays Co.'s account, for supplies not delivered as per contract; later purchased (in open market) by City Librarian. Difference in cost $67.38 between contract and market prices charged against contractor.

SALARY ACCOUNT.

Original appropriation, salaries	$4,500 00		
*Additional appropriation from Contingent Fund	16 67		$4,516 67
Paid City Librarian, Wilbur F. Coyle, January 1, 1911, (for December 1910) at $1,500 year	$125 00		
Paid January 1 to December 15, inclusive, 1911, at $2,000 year, 23 semi-monthly payments, $83.33 each	1,916 59		
		2,041 59	
Paid First Assistant City Librarian, G. Elmer Kirwan, January 1, 1911 (for December 1910), at $900 year	$75 00		
Paid January 1 to December 15, inclusive, 1911, at $1,000 year, 23 semi-monthly payments, $41.67 each	958 41		
		1,033 41	
Paid Second Assistant City Librarian, Raymond M. Duvall, January 1, 1911 (for December 1910), at $750 year	$62 50		
Paid January 1 to February 28, inclusive, 1911, at $750 year, 4 semi-monthly payments, $31.25 each	125 00		
		187 50	
Paid Second Assistant City Librarian, Harry L. Johnson, 2 days in April (30 days), at $62.50 month, at $2.08⅓ per day	4 17		
Paid Second Assistant City Librarian, Harry L. Johnson, May 1 to December 15, inclusive, 1911, at $750 year, 15 semi-monthly payments, $31.25 each	468 75		
		472 92	
Paid Clerk, William H. Soine, January 1, 1911 (for December, 1910), at $750 year	$62 50		
Paid January 1 to December 15, inclusive, 1911, at $750 year, 23 semi-monthly payments, $31.25 each	718 75		
		781 25	$4,516 67

*The following letter should be read in connection with the foregoing salary account statement:

BALTIMORE, December 15, 1911.

BOARD OF ESTIMATES,

JAMES F. THRIFT, *Secretary.*

GENTLEMEN:

There is a technical deficit of $187.50 in the City Library Salary Account for 1911. This arises from the institution of the semi-monthly payment plan, which was inaugurated in this department January 1, 1911. The appropriation of the City Library allows but twenty-four such payments, whereas, there must (the first year of the system) be twenty-five.

Owing to temporary vacancies in positions, the City Library actually has an unexpended salary of $170.83, which would ordinarily be returned to the treasury.

If I am authorized to use this $170.83, and your Board will appropriate $16.67 from the contingent fund, the demands of the present situation will be satisfied.

I may add that the city, of course, actually pays out no more money annually than it would under the monthly payment plan. All departments, with the exception of this one, were allowed an amount necessary to enable them to make the twenty-five payments, as explained above. Respectfully yours,

(Signed) WILBUR F. COYLE, *City Librarian.*

AMOUNTS EXPENDED FOR OTHER DEPARTMENTS BUT NOT CHARGED TO CITY LIBRARY APPROPRIATION.

DEPARTMENTS.	Stationery.	Printing.	Blank Books.	Miscellaneous.	Total.
Collector Water Rents and Licenses	$81 88	$630 66	143 62	$0 75	$856 91
Commission on City Plan	228 29	25 99	9 75	.....	264 03
Electrical Commission	189 05	161 67	305 55	.....	656 27
Factory Site Commission	22 19	15 39	.....	.....	37 58
Park Board	27 79	165 04	105 43	.....	298 26
Public Wharves and Docks	147 98	12 00	.....	.....	159 98
Paving Commission	50 09	40 03	13 98	.....	104 10
Sewerage Commission	823 98	1,014 25	249 00	2 60	2,089 83
Topographical Survey, (Blue Print)	555 85	.....	.....	.....	555 85
Water Engineer	423 25	709 81	287 28	.....	1,420 34
	$2,550 35	$2,774 84	$1,114 61	$3 35	$6,443 15

SUMMARY.

Amount appropriated to the City Library for stationery, printing and blank books for various departments		$22,715 00
Amount appropriated for salaries		4,500 00
Additional appropriation from Contingent Fund		16 67
Amount expended for stationery, printing and blank books	$21,504 02	
Amount expended for salaries	4,516 67	
Surplus Funds	1,210 98	
Total	$27,231 67	$27,231 67

Amount expended for other departments but not charged against City Library appropriation	$6,443 15
Amount charged against City Library appropriation	21,504 02
Grand total	$27,947 17

CITY LIBRARY REVENUE.

Sales City Code; Franchise Code; Indexes to Ordinances and Resolutions; Charters; Records of Baltimore; Ordinances and Resolutions, etc	$165 00
Balance paid into City Treasury	165 00

ANNUAL REPORT

OF THE

Collector of Water Rents and Licenses

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

REPORT

DEPARTMENT OF FINANCE,

SUB-DEPARTMENT,

COLLECTOR OF WATER RENTS AND LICENSES,

CITY HALL,

BALTIMORE, January 1, 1912.

To the Honorable the Mayor and Members of the City Council.

GENTLEMEN:

I respectfully submit my Annual Report showing the collections for water rents and licenses for 1911 by the following statements for your consideration.

The accompanying tabulated statements set forth in detail the work accomplished:

A.—Collection of water rents	$1,092,731 98
B.—Expenditures	462,689 70
C.—Monthly receipts of water rents	1,092,731 98
D.—Abatements	6,945 96
E.—New supplies and ferrules returned	30,570 00
F.—Balances remaining on ledgers December 31, 1911	130,622 20
G.—Revenue shown by ledgers January 1, 1912	1,435,441 00
H.—Receipts for licenses	114,589 63

All of which is respectfully submitted.

DANIEL J. LODEN,

Collector of Water Rents and Licenses.

STATEMENT A.

Collections Made for Water Department During the Year 1911.

	Dr.	Cr.
To water rents for 1911	$544,747 71	
To water rents for 1910	89,826 32	
To water rents for 1909	1,308 31	
To water rents for 1908	321 23	
To meter rents	402,163 73	
To plumbing bills	48,237 05	
To meter plumbing	3,755 70	
To interest on back water rents	1,544 93	
To turn-offs	316 00	
To vacancies	511 00	
By deposits with the City Register:		
January		$210,142 77
February		82,473 70
March		265,266 07
April		151,101 10
May		40,085 33
June		44,841 83
July		114,071 87
August		18,307 85
September		12,554 59
October		107,407 47
November		20,210 37
December		26,269 03
	$1,092,731 98	$1,092,731 98

STATEMENT B.

Expenditures During the Year 1911.

Appropriation Made by the Mayor and City Council:		
For interest on water loans	$415,000 00	
For salaries	30,124 35	
For sinking fund	16,050 00	
For expenses	2,055 00	
		$463,229 35
Amount expended for interest	$415,000 00	
Amount expended for salaries	30,124 17	
Amount expended for sinking fund	15,813 59	
Amount expended for expenses	1,751 94	
		462,689 70
Amount of appropriation unexpended		$539 65

STATEMENT C.

Receipts of the Collector of Water Rents and Licenses from Water Rents for the Year 1911.

	January	February	March	April
Water rents for 1911....	$100,900 24	$62,871 75	$242,915 82	$57,245 92
Water rents for 1910....	16,581 03	7,132 49	15,790 85	10,850 98
Water rents for 1909....	98 75	121 00	96 08	104 42
Water rents for 1908....	15 00	11 50	.....	59 95
Meter rents	90,487 35	7,755 45	2,357 45	79,659 22
Plumbing bills.....	1,677 62	4,384 79	3,707 29	2,504 55
Meter plumbing.....	295 21	124 68	189 42	476 84
Int. on back water rents	5 57	51 04	159 16	173 22
Turn-offs	5 00	6 00	5 00	1 00
Vacancies.....	77 00	15 00	45 00	25 00
	$210,142 77	$82,473 70	$265,266 07	$151,101 10

	May	June	July	August
Water rents for 1911....	$17,281 10	$14,110 75	$9,741 21	$5,355 09
Water rents for 1910....	5,386 77	18,582 26	12,403 64	1,141 17
Water rents for 1909....	53 50	293 47	284 59	75 67
Water rents for 1908....	.....	94 50	47 00	25 00
Meter rents	9,774 12	7,737 04	85,690 70	7,408 94
Plumbing bills.....	7,266 85	3,003 44	5,058 05	3,973 87
Meter plumbing.....	164 77	474 36	268 31	219 00
Int. on back water rents	110 22	503 01	391 37	49 11
Turn-offs...	2 00	3 00	169 00	50 00
Vacancies.....	46 00	40 00	18 00	10 00
	$40,085 33	$44,841 83	$114,071 87	$18,307 85

STATEMENT C.—*Continued.*

	September	October	November	December
Water rents for 1911....	$4,988 42	$6,031 25	$5,792 70	$17,513 46
Water rents for 1910....	638 09	839 54	319 58	159 92
Water rents for 1909....	17 00	34 83	68 50	60 50
Water rents for 1908....	11 50	9 00	43 78	4 00
Meter rents.....	2,757 55	96,287 68	7,303 84	4,944 39
Plumbing bills.....	3,849 54	3,994 12	5,679 16	3,137 77
Meter plumbing.....	228 02	114 21	858 50	342 38
Int. on back water rents	28 47	41 84	18 31	13 61
Turn-offs.....	27 00	31 00	11 00	6 00
Vacancies.....	9 00	24 00	115 00	87 00
	$12,554 59	$107,407 47	$20,210 37	$26,269 03

Total water rents for 1911.....	$544,747 71
Total water rents for 1910.....	89,826 32
Total water rents for 1909.....	1,308 31
Total water rents for 1908.....	321 23
Total meter rents.....	402,163 73
Total plumbing bills.....	48,237 05
Total meter plumbing.....	3,755 70
Total interest on back water rents.....	1,544 93
Total turn-offs.....	316 00
Total vacancies.....	511 00
	$1,092,731 98

STATEMENT D

Abatements Condensed for the Year 1911.

	No.	Delinquent	Current	Total
January	113	$413 19	$300 75	$713 94
February	88	369 50	270 56	640 06
March	125	496 77	342 77	839 54
April	118	575 41	402 34	977 75
May	72	236 56	235 13	471 69
June	110	518 50	361 49	879 99
July	58	267 08	160 38	427 46
August	79	257 25	346 35	603 60
September	46	80 50	193 66	274 16
October	50	116 42	234 54	350 96
November	40	76 33	261 84	338 17
December	49	112 75	315 89	428 64
	948	$3,520 26	$3,425 70	$6,945 96

STATEMENT E.

New Supplies and Ferrules Returned for the Year 1911.

2,275	new supplies at $12	$27,300 00
99	new supplies at $8	792 00
48	new supplies at $6	288 00
362	joint pipe supplies at $6	2,172 00
9	ferrules returned at $2	18 00
		$30,570 00

STATEMENT F.

Balances Remaining on Ledgers December 31, 1911

Current water rents	$113,079 53
Delinquent water rents	4,375 21
Meter rates	3,029 00
Plumbing bills	10,138 46
	$130,622 20

STATEMENT G.

Revenue Shown by Ledgers January 1, 1912.

No.	Dwellings	Rate	Total	
26,089	Houses 12 feet or under	$3 25	$84,789 25	
17,445	Houses over 12 feet	5 00	87,225 00	
27,402	Houses over 13 feet	6 50	178,113 00	
15,631	Houses over 14 feet	7 50	117,232 50	
8,242	Houses over 15 feet	9 00	74,178 00	
4,026	Houses over 16 feet	11 50	46,299 00	
3,644	Houses over 17 feet	15 50	56,482 00	
1,267	Houses over 18 feet	17 00	21,539 00	
3,910	Houses over 19 feet	19 50	76,245 00	
1,404	Houses over 22 feet	22 00	30,888 00	
1,194	Houses over 25 feet	25 00	29,850 00	
286	Houses over 30 feet	27 50	7,865 00	
182	Houses over 35 feet	30 00	5,460 00	
209	Houses over 40 feet	32 50	6,792 50	$822,958 25
	Warehouses.			
1,212	22 feet or over	13 00	15,756 00	
563	17 feet and less than 22 feet	10 50	5,911 50	
217	Under 17 feet	8 00	1,736 00	23,403 50
	Miscellaneous			39,079 25
				$885,441 00
	New supplies, repairs, etc			50,000 00
	Estimated revenue from meters and indicators			500,000 00
	Total revenue			$1,435,441 00

STATEMENT H.

Receipts from General Licenses for the Year 1911.

One-horse wagons	$20,672 50	
Two-horse wagons	16,156 00	
Three-horse wagons	1,195 50	
Four-horse wagons	428 00	
Six-horse wagons	126 00	
Cabs	86 25	
Hacks	483 75	
Package carts	830 50	
		$39,978 50
Coal oil		1,881 00
Theatrical permits and licenses		7,577 90
Telephone and telegraph poles		18,668 00
Cars		4,384 30
Scows		724 50
Billiard tables	$237 50	
Pool tables	8,837 50	
Bagatelle tables	565 00	
		9,640 00
Bowling alleys		1,512 50
Pawnbrokers		1,700 33
O. E. A. licenses		358 85
Bacon		1,200 00
Sausage and pudding		45 00
Merchandise (women)		20 00
Fruit		50 00
Numbers replaced		118 00
Gasoline stoves		167 50
Cut flowers		86 25
Employment agencies		518 75
Dog licenses		25,958 25
		$114,589 63
Deposited with the City Register		114,589 63

FIFTY-FIRST ANNUAL REPORT

OF THE

Commissioners for Opening Streets

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

REPORT

OFFICE OF THE

COMMISSIONERS FOR OPENING STREETS,

CITY HALL,

BALTIMORE, December 31, 1911.

To the Honorable, the Mayor of Baltimore,
and the Members of the City Council.

GENTLEMEN:

We respectfully submit herewith the report of the operations of this Department for the year ending December 31, 1911.

The Commissioners for Opening Streets, during the past year, made their final returns on twelve streets having a total length of 16,975 feet, and at a cost of $205,905.96.

The most important of these is Thirty-third street, opened from the Hillen road to Charles street. This street opens up an enormous territory for development. It is laid out 120 feet wide, and is over 8,000 feet in length. It will have planting spaces provided, and will be built partly by the Park Board. Thirty-third street is one of the connecting links in the great park scheme, giving a fine boulevard between Clifton and Wyman Parks.

It is a source of satisfaction to the city that the large number of streets were opened at such a low cost. There were few appeals taken from the hundreds of awards made, and

the totals did not aggregate $500. In another part of this report will be shown the costs of each street and the dates of the final returns.

The Board also received during the year, twenty-two preliminary plats. Twenty-one were for opening streets and one was for closing. A list of these is given on another page.

In carrying out the work of paving streets under the old Annex Loan Act, there was one uncompleted contract left over from 1910, namely, Poplar Grove street (formerly called Seventh street), from Edmondson avenue to Westwood avenue. This contract was let to the F. E. Schneider Paving Company, on June 1, 1910, to pave the street with sheet asphalt and granite blocks in the car tracks. Later this contract was extended to include the block between Westwood and North avenues.

Unusual difficulties were encountered in the prosecution of the work. This was due partly to the fact that the various city departments and public service corporations had to place new underground construction in the street bed; at times, one department had to wait until the work of another had been completed. The many days of bad weather was also a source of much delay. Most of the heavy grading (in some places through solid rock) was carried on during the winter of 1910-1911. At the present time, however, there is but one week's work to be done before the street is turned over to the city as fully completed. Poplar Grove street is now opened to traffic through from Edmondson avenue to North avenue, the contractors having taken the responsibility for repairs to the concrete base left exposed in two blocks.

The opening of this street supplies a thoroughfare from Edmondson avenue to North avenue, and is the only avenue of travel between these points west of Fulton avenue; it is half way between the last-named street and the western city

limits, over two miles distant. It furnishes communication between the southwestern, western and northwestern sections of the city, and as an improved street gives a smooth driveway connection from the extreme southwestern to the extreme northwestern points. Prior to the opening of this street, there was no opened or paved street west of Fulton avenue with the exception of the Bloomingdale road, of which Poplar Grove street forms a part. This road was practically impassable at times, and was owned partly by private interests. Besides being a useful opening, the paving of the street places thousands of dollars' worth of property upon a higher rate of taxation.

In the paving of this street, it was necessary to erect a steel concrete bridge over the right-of-way of the Western Maryland Tidewater Railroad Company. The contract for this structure was awarded to the Raymond Concrete Pile Company. The clear span is 83 feet 4¾ inches. The itemized cost is shown in another part of this report.

The Board awarded two contracts this year, which practically extinguished the small balance left from the loan.

Contract No. 89 was awarded to the David M. Andrew Contracting Company for paving Keyworth avenue and the adjoining 15-foot alley, from Reisterstown road to Park Heights avenue, with a tarred macadam paving. The fact that this street is not completed at the present time is due to the lateness of the season when the work was started and to the fact that both storm water and sanitary sewers had to be constructed by the Sewerage Commission before our contractors could get possession of the street.

Contract No. 90 was awarded to the Consolidated Engineering Company for the paving of Cokesbury avenue with vitrified brick, from Adams street to a point about 300 feet northwardly, to connect with the brick pavement laid by the City

Engineer's Department in a previous year. This work was started in October, 1911, and completed on November 22, 1911.

The total mileage of streets paved out of the loan is 26.79 miles, based on a 40-foot street between curbs.

Respectfully submitted,

EUGENE E. GRANNAN,
BUSHROD M. WATTS,
HENRY F. NEW,
Commissioners.

EUGENE F. RODGERS,
Secretary.

The following preliminary plats were received during the year:

Addison alley (Hood street), from Front street to High street.
Adams street, from Homewood avenue to Twenty-fifth street.
Broadway, from North avenue to Harford road.
Garrison, Berwyn and Liberty Heights avenues, from Clifton avenue to the western city limits.
Calvert street, from North avenue to Twentieth street.
Creamer alley, from Barre street to Lee street.
Eager Place, from Milton avenue to Glover street.
Frederick road, in the vicinity of Gwynn's Falls.
Glover street, from Monument street to Madison street.
Goldsmith street, from Harford road to Hargest avenue.
Garrison avenue, from Windsor Mill road to Clifton avenue.
Glover street, from Eager street to Madison street.
Longwood street, from Westwood avenue to Baker street.
Little Greene street, from Barre street to Lee street.
McPhail street, from 400 feet north of the Frederick road to Hollins street.
Mace street, from Twenty-eighth street to Twenty-ninth street.
Milton avenue, from North avenue to Belair road.
Park Heights avenue, from Reisterstown road to the northern city limits.
Palatka avenue (now called Belle avenue), from Garrison avenue to the western city limits.
Commercial and recreation pier and the widening of Thames street, between Broadway and Ann street.
South Water-Front street, from Light street to Montgomery street.
Wyman avenue, from Huntingdon avenue to Remington avenue.

The following streets, alleys, etc., that are in process of opening and closing under ordinances of the Mayor and City Council of Baltimore:

Baltimore street, Garrison lane to the Old Frederick road; Ord. No. 272, approved March 10, 1907.
Sterrett street, from Cross street to Hamburg street, and a nine-foot alley, from Scott street to Sterrett street; Ord. No. 270, approved May 9, 1907.
The Alameda, from Thirty-third street to the Harford road; Ord. No. 227, approved December 11, 1908.

Twenty-fifth street, from Greenmount avenue to the Harford road; Ord. No. 416, approved December 9, 1909.

Baker street, from the old city limits to Hilton street; Ord. No. 535, approved June 6, 1910.

Twenty-sixth street, from Huntingdon avenue to Hampden avenue; Ord. No. 417, approved December 9, 1909.

Taylor street, from The Alameda to Homewood avenue; Ord. No. 698, approved May 15, 1911.

Bonner road, from Garrison avenue to 200 feet west of Winfield avenue; Ord. No. 681, approved April 29, 1911.

Belair road, from North avenue to the eastern city limits; Ord. No. 679, approved April 25, 1911.

Gwynn's Falls Parkway, from Reisterstown road to Gwynn's Falls Park; Ord. No. 678, approved April 25, 1911.

Ashburton street, from North avenue to Lafayette avenue; Ord. No. 669, approved April 18, 1911.

Park Hill avenue, from Park Heights avenue to Green Spring avenue; Ord. No. 704, approved May 15, 1911.

South Water-Front street, east from Light street to Montgomery street; Ord. No. 682, approved May 3, 1911.

Thames street, from Broadway to Ann street, and the commercial and recreation pier; Ord. No. 689, approved May 12, 1911.

Dukeland street, from Presbury street to Lafayette avenue; Ord. No. 624, approved January 9, 1911.

Creamer alley, from Barre street to Lee street; Ord. No. 26, approved November 22, 1911.

Little Greene street, from Barre street to Lee street; Ord. No. 27, approved November 22, 1911.

Calvert street, from North avenue to Twentieth street; Ord. No. 34, approved November 28, 1911.

Glover street, from Monument street to Madison street; Ord. No. 16, approved October 30, 1911.

Frederick road, in the vicinity of Gwynn's Falls; Ord. No. 33, approved November 28, 1911.

Palatka avenue (now called Belle avenue), from Garrison avenue to the western city limits; Ord. No. 60, approved December 28, 1911.

Streets in process of opening under the Annex Loan Act:

Harford road, from North avenue to the eastern city limits.

Garrison, Berwyn and Liberty Heights avenues, from Clifton avenue to the western city limits.

CLOSING.

Apple or Jew alley, from Monument street to the Old Joppa road; Ord. No. 99, approved November 24, 1902.

Old Joppa road, from Harford road to Jew alley; Ord. No. 231; approved February 27, 1907.

Ten-foot alley, from Ensor street to Jew alley; Ord. No. 228, approved February 20, 1907.

Windsor Mill road, from Payson street to the Bloomingdale road; Ord. No. 534, approved June 6, 1910.

Courtney street, from Monument street to Falls street; Ord. No. 275, approved March 12, 1909.

Slingluff avenue, from North avenue to Beech avenue; Ord. No. 357, approved July 13, 1909.

The following streets, under Ordinance No. 387, approved August 16, 1909:

Ostend street, from Howard street to China street.

Annapolis road and Harmonds bridge, from the center line of Gunpowder street to the city line at Gwynn's Falls.

Barre street, from Eutaw street to a point 100 feet east of Howard street.

Covington street, from right-of-way of B. & O. R. R. to a point 170 feet south of Winder street.

Conway street, from east side of Howard street to a point 100 feet east thereof.

China street, from Ostend street to a point 132 feet north thereof.

Cecil alley, from Stockholm street to Ostend street.

Chepultepec alley, from Ohio avenue to Eutaw street.

Clare street, from Paca street to Gwynn's Falls.

Dock street, from center line of Shell street to southeast terminus of Dock street.

Eutaw street, from Stockholm street to Patapsco River (except west half) for a depth of 66 feet south of Stockholm street.

West street, from Eutaw street to Howard street.

Elk street, from Russell street to Gwynn's Falls.

Port Covington road, from Winder street south 170 feet.

Jackson street, from an unnamed 25-foot street to a point 170 feet south of Winder street.

Johnson street, from Winder street to a point 170 feet south thereof.

Ohio avenue, from Stockholm street to York street.
Paca street, from Elk street to Gwynn's Falls.
Putnam street, from Paca street to Gwynn's Falls.
Patapsco avenue, from York street to Hill street.
Perry street, from east side of Howard street to a point 100 feet east thereof.
Race street, from a point 180 feet north of McComas street to a point 434.82 feet north of McComas street.
Ridgely street, from Elk street to Putnam street.
Henrietta street, from Eutaw street to Howard street.
Gould street (northwest half), from former Gould and Gittings line to a point 170 feet south of Winder street.
Howard street, from Hill street to Camden street.
Russell street, from Elk street to Putnam street.
Shell street, from Dock street to northeast line of Carey street.
Spring Garden avenue, from York street to Hill street.
Wayne street, from east side of Howard street to a point 100 feet east thereof.
Welcome alley, from Eutaw street to a point 100 feet east of Howard street.
Winder street, from east side of Johnson street to the east side of Henry street.
Winder street, from west side of Light street to the west side of Marshall street.
Montgomery street, from Eutaw street to Howard street.
Warner street, from center line of Gunpowder street to Putnam street.
York street, from Eutaw street to Sharp street.
Twenty-five foot (unnamed) street, from Gould street to the B. & O. R. R. Co. right-of-way.
Ten-foot (unnamed) alley, east of Hanover street, from south side of Winder street to a point 52 feet south thereof.

Streets deeded to the city:

Hilton street, from Morris avenue to North avenue.
Strips of land constituting portions of the beds of Garrison, Berwyn and Liberty Heights avenues.
Brooks lane, from Madison street to Eutaw Place.
Thirty-second street, from Charles street to St. Paul street.
Thirty-fourth street, from Charles street to St. Paul street.
Thirty-fifth street, from Charles street to St. Paul street.

STREETS OPENED AND CLOSED UNDER ORDINANCES OF THE MAYOR AND CITY COUNCIL.

Names of Streets.	Damages and Expenses.	Benefits.	Amounts on Mayor and City Council.
Thirty-third street, from Charles street to the Hillen road. Ordinance No. 251, approved April 5, 1907. Final return, August 15, 1911.....	$142,133 16	$75,543 00	$66,590 16
Homestead street, from Tyler street to the Harford road. Ordinance No. 335, approved June 10, 1909. Final return, July 19, 1911.....	17,023 60	3,990 00	13,033 60
Homestead street, from Greenmount avenue to Tinges lane. Ordinance No. 336, approved June 10, 1909. Final return, July 20, 1911.....	26,169 38	1,450 00	14,719 38
Oak street, from University Parkway to Mallory lane. Ordinance No. 386, approved August 9, 1909. Final return, August 16, 1911..	10,029 26	6,217 85	3,811 41
Saratoga street, from Holliday to Gay streets. Ordinance No. 397, approved October 22, 1909. Final return, June 20, 1911.....	49,563 62	14,635 00	34,928 62
Twenty-seventh street, from Huntingdon avenue to Hampden avenue. Ordinance No. 536, approved June 6, 1910. Final return, October 16, 1911.....	4,959 44	2,807 25	2,152 19

STREETS OPENED AND CLOSED UNDER ORDINANCES OF THE MAYOR AND CITY COUNCIL.—*Continued.*

Names of Streets.	Damages and Expenses.	Benefits.	Amounts on Mayor and City Council.
Thirty-fourth street, from Greenmount avenue to Tinges lane. Ordinance No. 489, approved May 2, 1910. Final return June 24, 1911.....	$26,394 21	$9,074 95	$17,319 26
Twenty-sixth street, from Remington to Huntingdon avenues. Ordinance No. 537, approved June 6, 1910. Final return, August 24, 1911.....	4,754 62	2,419 00	2,335 62
Oak street, from Twenty-sixth to Twenty-ninth streets. Ordinance No. 524, approved June 3, 1910. Final return, July 20, 1911.....	8,306 86	5,715 70	2,591 16
Pratt street, from East Falls avenue to President street. Ordinance No. 572, approved June 18, 1910. Final return, February 27, 1911.....	53,156 73	5,651 80	47,504 93
Remington avenue, from Twenty-eighth to Oak streets. Ordinance No. 605, approved December 16, 1910. Final return, October 24, 1911,	409 85	7 00	402 85
Wyman avenue, from Remington to Huntingdon avenues. Ordinance No. 695, approved May 15, 1911. Final return, September 29, 1911.....	4,769 47	2,460 50	2,308 97

STREETS OPENED AND CLOSED UNDER ORDINANCES OF THE MAYOR AND CITY COUNCIL—*Concluded.*

Names of Streets.	Damages and Expenses.	Benefits.	Amounts on Mayor and City Council.
Merrymans lane, from Cedar avenue to Fortieth street. Ordinance No. 543, approved June 9, 1910. Final return, August 25, 1911.....	$251 37	$251 37	.....

Summary of Expenses of This Department

Original Appropriation, salaries..... $10,187 50

EXPENDITURES TO DECEMBER 15, 1911.

Commissioner, James H. Smith, 9 months.....	$1,350 00	
Commissioner, Bushrod M. Watts, 12½ months..	1,875 00	
Commissioner, Henry F. New, 12½ months.....	1,875 00	
Commissioner, Eugene E. Grannan, ½ month....	75 00	
Clerk to Board, Eugene F. Rodgers, 12½ months.	1,562 50	
Real estate man, Samuel F. Sharretts, 12 months,	1,800 00	
Assistant real estate man, Frank P. Kavanaugh, 12 months	1,200 00	
Balance	450 00	
		10,187 50

Original Appropriation, expenses..... $500 00

EXPENDITURES TO DECEMBER 31, 1911.

Newspapers	$16 48	
Directory	7 00	
Transportation	118 00	
Stamps	20 00	
Stationery	23 00	
Premiums on bonds.....	47 50	
Booth space (Industrial Exposition).....	45 00	
Typewriter	45 73	
Miscellaneous	24 40	
Balance	152 89	
		500 00

Annex Loan Account

EXPENDITURES TO DECEMBER 31, 1911.

Salaries, charged to expenses:		
Chief Engineer, August E. Christhilf, 11.5 months	$2,395 80	
Assistant Engineer, William G. Sucro, 12 months	1,800 00	
Rodman, John Brannan, 12 months	780 00	
Inspector, Michael Fallon, 12 months	1,080 00	
Inspector, John J. Silk, 1.79 months	161 13	
		$6,216 93
Thirty-second street, Charles street to St. Paul street, acquiring street bed		106 50
Thirty-fourth street, Charles street to St. Paul street, acquiring street bed		105 50
Thirty-fifth street, Charles street to St. Paul street, acquiring street bed		105 50
Garrison, Berwyn and Liberty Heights avenues, condemnation		252 88
Cokesbury avenue paving. Final estimate:		
1,966 cu. yds. grading at 50c	$983 00	
1,237.9 sq. yds. vitrified brick paving on 6-in. concrete base at $1.90	2,352 01	
601.7 lin. ft. 6-in. concrete curb and circles at 70c.	421 19	
90 lin. ft. old curb reset as headers at 30c	27 00	
85.3 sq. yds. cobble repaving at 60c	51 18	
	$3,834 38	
Advertising	63 08	
		3,897 46
Keyworth avenue paving, Reisterstown road to Park Heights avenue:		
Advertising	$97 05	
Sewerage Commission, building inlets	17 71	
To amount of current estimate, as shown by Estimate No. 1	1,093 68	
		1,178 44
Amount carried forward		$11,863 21

Amount brought forward		$11,863 21
Charles street condemnation		30 30
Deficiency in receipts, sale of Annex Loan Bonds		428 75
Amount of premiums on sale of Annex Loan Stock in 1908		613 15
Annual Reports		179 82
Blueprinting		4 16
Miscellaneous articles, stationery		23 00
Miscellaneous construction and repairs		85 57
Recording deeds		37 25
Poplar Grove street paving, from Edmondson avenue to North avenue:		
To amount of current estimates, as shown by Estimate No. 14	$49,626 69	
Less amount paid in 1910	3,443 57	
	$46,183 12	
Extra work:		
Removing mud from roadbed	366 35	
Removing fences	4 95	
Cutting headers	94 63	
Taking out asphalt, etc	42 08	
Bell-ramming at Calverton road	19 18	
Hauling headers and cobble	56 73	
Removing bad ground and setting headers	648 24	
Ramming ditches, refilling bad ground	136 36	
Use of roller, macadamizing, barring up stone, concrete, hauling, etc	377 96	
Consolidated Gas Company, removing lamp	3 72	
City Engineer:		
Pipe line and inlets at Mosher street	320 36	
Pipe line and inlets at Presbury street	428 64	
E. T. Foreman, hauling	16 16	
		48,608 48
Bentalou street opening, North avenue to Lafayette avenue		2 00
Amount carried forward		$61,965 69

Amount brought forward		$61,965 69
Poplar Grove street bridge over right-of-way of Western Maryland Tidewater Railway. Final estimate:		
1,850 cu. yds. excavation at $1.32	$2,442 00	
2,226.44 cu. yds. concrete in abutments at $7.85	17,477 55	
Steel work, railings, etc	8,700 00	
Concrete slabs, curbs, casing, etc	5,000 00	
	$33,619 55	
Less amount paid in 1910	12,730 64	
	$20,888 91	
Extra work:		
Centering headwalls	12 64	
Rearrangement of electrical ducts	125 00	
Extra material in girders, bending iron	100 00	
		21,126 55
Morris avenue closing, Westwood avenue to Hilton street		37 80
Poplar Grove street condemnation, Edmondson avenue to Westwood avenue		5 98
Total expenditures		$83,136 02

TABLE SHOWING WORK UNDER ANNEX LOAN ACT

Street.	From	Concrete Curb. Lineal Feet.	Combination Concrete Curb and Gutter. Lineal Feet	Stone Curb. Lineal Feet.	Curb Reset and, Redressed. Lineal Feet	Headers. Lineal Feet.	Gutter Stone. Lineal Feet.	Vitrified Brick. Square Yards.	Granite Block. Square Yards	Bitulithic. Square Yards	Sheet Asphalt. Square Yards.	Asphalt. Block. Square Yards	Macadam. Square Yards	Grading. Cubic Yards	Final Estimate.	Contractor.	Former Condition.	Miles of Street 40 Feet Wide.	Total Yardage.	"Filbertine." Square Yards
Erdman avenue	Harford road to 1,500 feet east												4.463	260	$6,276 41	Daniel Sullivan	.....Unpaved.....	.190	4,463	
Twenty-fifth street	York road to Huntingdon avenue	5,252				668		822	2,032	15,378				5,990	50,294 24	Warren Bros Co	Unpaved and cobble	.777	18,232	
Twenty-sixth street	Oak street to Calvert street			830	1,579	335		5,209						767	7,830 50	J F. Gantz & Co	.....Unpaved....	.222	5,209	
Calvert street	Twenty-fourth to Twenty-ninth street			2,889	1,821	352		10,107						532	24,769 95	Southern Manufacturing Co.	Unpaved and cobble	.430	10,107	
Decatur street	Estaw street to Lauder avenue			692		84		1,354							3,728 72	Gantz Construction Co	.....Unpaved....	.058	1,354	
Twentieth street	Charles street to St. Paul street					770						1,752			4,030 04	Maryland Paving Co.	.....Unpaved....	.075	1,752	
Whitelock street	Linden avenue to Mt. Royal Terrace	3,554				247		665		8,033			2,343		24,773 00	Warren Bros. Co	.....Unpaved....	.400	9,598	
Oak street	Twenty fourth to Twenty-sixth streets			2,053				196		4,292			2,186		13,750 25	Warren Bros Co	Unpaved and cobble	.198	4,642	
Twenty-seventh street	Oak street to Calvert street	488		617	1,333			354		5,393			2,042		15,598 14	Warren Bros. Co	.....Unpaved....	.248	5,810	
McHenry street	Garrison lane to Catherine street			880		80		1,955					1,090		5,798 26	Wm. M. Elder	.....Unpaved.	.083	1,955	
Millington lane	Frederick road to Wilkens avenue	2,810				292		52				2,865	251		9,892 35	Maryland Paving Co.	.....Unpaved.	.124	2,917	
Lombard street	Garrison lane to Catherine street	1,117				51						2,464	1,123		7,216 90	Maryland Paving Co	.....Unpaved.	.105	2,464	
York road	North avenue to northern city line	21,231				1,590	21,512	1,545	43,047				12,357		158,052 26	Gantz Construction Co	Unpaved and cobble	1.984	46,576	
Roland avenue	Third avenue to northern city line	6,884				392		1,060	5,146	10,875			3,672		54,024 41	Warren Bros. Co	Unpaved and cobble	.712	16,706	
First, Chestnut and Third avenues	Cedar avenue to Falls road	6,750				828		18,818					3,092		48,962 05	Gantz Construction Co	Unpaved and cobble	.802	18,818	
Catherine street	Frederick road to Lombard street	1,755				280		4,149					534		10,933 06	Wm. M. Elder	.....Unpaved....	.177	4,149	
Ninth street	North avenue to Clifton avenue	1,485				84		574					2,881		5,950 61	P. Flanigan & Sons	.....Unpaved....	.147	3,455	
Massachusetts avenue	Augusta avenue to Loudon avenue				1,470	152		308					2,012	354	5,133 12	P. Flanigan & Sons	.....Unpaved....	.127	2,980	
Lidnay avenue	Harford road to Belair road												6,558	6,641	11,283 32	P. F Reddington	.....Unpaved....	.279	6,558	
Charles street	North avenue to Merrymans lane	7,394				1,054		3,431		47,776				81,107	171,092 23	Wm. M. Elder	Unpaved and cobble	2.182	51,207	
Park Terrace	Druid Hill avenue to Madison street			308	248	96		1,818	552						6,425 48	P. F. Reddington	Unpaved and cobble	.101	2,370	
Washington street	North avenue to Clifton Park				1,256	90		102		2,815				3,092	7,525 30	Warren Bros. Co	Unpaved and cobble	.128	3,007	
Carroll street	Caton avenue to Eighth street		2,779			74		37					3,284	534	8,926 40	P. Flanigan & Sons	.....Unpaved....	.141	3,321	
Elbridge avenue	B. P. R. R to Second street	2,280				80		507					4,946	7,895	13,689 32	P. F. Reddington	.....Unpaved.....	.235	5,513	
Dale avenue	Garrison avenue to Lewin avenue		2,207			76		10					3,518	7,080	6,129 02	P Flanigan & Sons	.....Unpaved	.151	3,537	
Fernhill avenue	Garrison avenue to western city line		2,480			57		89						1,335	8,052 11	P. Flanigan & Sons	.....Unpaved.....	.171	4,475	
Robert avenue	Whitelock street to Druid Hill Park	1,754				170		3,939						5,449	14,444 08	F. E. Schneider & Co	.....Unpaved	.168	3,949	
Linbard street	Catherine street to Wilkens avenue	491			31	51		855						15,664	2,283 06	P. F. Reddington	.....Unpaved..	.036	855	
Wilkens avenue	Old city line to southern city line	8,710				537		1,305	9,119		14,077			19,333	81,843 21	Wm. M Elder	Unpaved and cobble	1.044	24,501	
Seventh street	North avenue to Northwest street		624			105		96					1,201	1,300	2,079 48	P. Flanigan & Sons	.....Unpaved.....	.052	1,267	
Chelsea Terrace	Clifton avenue to Winfor Mill road				1,505	30		341					2,206	236	3,705 58	P. Flanigan & Sons	.....Unpaved.....	.109	2,547	
Twenty-eighth street	Maryland avenue to St. Paul street	1,420				113		311		2,882				4,349	9,522 06	Wm. M. Elder	.....Unpaved	.136	3,193	
Kate avenue	Garrison avenue to Park Heights avenue		10,379			162		200					15,412	15,173	26,743 05	P Flanigan & Sons	.....Unpaved.	.605	15,612	
Wirt street	Yale avenue to Augusta avenue		491			22		27					719	953	1,303 26	P. Flanigan & Sons	.....Unpaved .	.032	746	
Yale avenue	Frederick road to Potter avenue		2,102			63		41					3,075	1,127	4,870 98	P. Flanigan & Sons	.....Unpaved.....	.133	3,116	
Granada avenue	Ridgewood avenue to northern city line		2,428					236					3,589	4,641	7,583 05	P. Flanigan & Sons	.....Unpaved.....	.163	3,825	
Twenty-eighth street	St. Paul street to Calvert street			19	537	40		1,230							2,755 70	F. E. Schneider & Co.	.....Cobble.	.052	1,230	
Twenty-second street	Oak street to Cromwell street	1,753			4,313	719		1,253		13,416				1,117	40,726 75	J. L. Robertson	.....Cobble.	.625	14,699	
King street	Linden avenue to Bolton street	341			338	104		109			1,040				2,885.17	Filbert Paving and Cons. Co	.....Cobble.	.049	1,146	
Waterford street	Frederick road to Old Frederick road		1,094			72		8					2,188	2,849	3,681 10	J. C. Leonard	.....Unpaved.	.094	2,196	
North avenue	Payson street to Twelfth street	13,207.5				1,482.7		3,044.3	13,923.6	30,303.3				26,696	146,265 92	Warren Bros. Co	Unpaved and cobble	1.975	46,371	
Twelfth street	Charles street to St. Paul street				742	40		117			1,491		56,652	1,023	3,707 29	General Paving and Con. Co.	.....Unpaved	.069	1,668	
Twenty-fourth street	Barclay street to York road	855				142		182			1,300				3,703 59	Filbert Paving and Cons. Co.	.....Unpaved	.066	1,551	
Struthers lane	North avenue to Pennsylvania avenue					77	467		929				Tar and	362	3,453 63	F. E. Schneider & Co	.....Unpaved	.041	980	
Smallwood street	North avenue to Herbert street			198		89		843					Asphalt		2,177 91	P. F Reddington	.....Unpaved	.039	843	
Caton avenue	Frederick road to southern city line	3,075				227	4,301	54	8,294				Macadam.	6,755	32,646 36	F. E. Schneider & Co	.....Unpaved	.372	8,731	
Elm avenue	Second avenue to Fourth avenue	2,800				284		492		5,362				4,960	17,484 70	Warren Bros. Co	.....Unpaved	.249	5,864	
Oakfield avenue	Erie avenue to Liberty road		2,722			244		115					5,386	1,111	7,812 54	P. Flanigan & Sons	.....Unpaved...	.234	5,501	
Seventh street	North avenue to Clifton avenue	1,454				130		523		2,841					9,109 03	Warren Bros. Co	.....Unpaved	143	3,364	
Eighth street	North avenue to Clifton avenue				1,273	218		477		3,271					9,707 71	Warren Bros Co	.....Unpaved.....	159	3,748	
Clifton avenue	Eighth street to Slingluff avenue	1,702				97		264		3,796				2,007	11,544 83	Warren Bros. Co	.....Unpaved.....	.173	4,060	
Walbrook avenue	Ninth street to Slingluff avenue	2,800				75		440		5,421				1,273	15,685 73	Warren Bros Co	.....Unpaved	249	5,861	
Garrison avenue	Liberty road to northern city line	19,131.3				665.8		2,051.3	9,401.6		12,118 6				64,284 68	P. Flanigan & Sons	Unpaved and cobble	1.006	23,934	
Washington street	Taylor street to Harford road	3,483				210		6,079						3,538	16,720 33	P F Reddington	.....Unpaved	289	6,079	
Thirty-first street	Charles street to York road	4,028.3				659		919.7	3,681.5		5,367.6			17,359	31,950 05	Wm M Elder	Unpaved and cobble	425	9,969	
Gotsuch avenue	York road to Harford road	11,153.1				474		2,579	10,653.7	9,650 3				14,755	72,265 96	Wm M Elder	Unpaved and cobble	.975	22,802	
Granada avenue	Liberty road to western city line		1,524			80		125					2,196		3,383 24	P Flanigan & Sons	.... Unpaved....	.098	2,422	
Springdale avenue	Oakfield avenue to western city line		1,168			10		17					1,712		2,425 33	P Flanigan & Sons	Unpaved	.071	1,749	
Thirtieth street	Huntingdon avenue to Remington avenue	1842				81		144.3			1,377 8			822	3,466 37	F. E. Schneider Paving Co	Unpaved	.065	1,622	
Twenty-ninth street	Huntingdon avenue to Guilford avenue	2,725.4		28	407	1,138.4		976			12,060.5			4,208	27,857 86	F E Schneider Paving Co	Unpaved and cobble	552	12,900	
Remington avenue	Twenty ninth street to Cedar avenue	44 11 1				421.8		757.5			11 982 5			38,226.3	37,070 82	F. E. Schneider Paving Co	Unpaved	542	12,740	
Ninth avenue	Falls road to Chestnut avenue	2,782.1				205.8		605.6	1,309.6	4,614 1				3,572	20,223.12	Warren Bros Co	Unpaved	278	6,529	
Chestnut avenue	Ten Lavenue to Fourth avenue	974.3				135.2		2,591.5						4,500	8,054 88	P. F. Reddington	Unpaved	119	2,592	
London avenue	Frederick road to Old Frederick road		1,880 8			130.2		72.3					3,680	1,319	6,107 22	P. Flanigan & Sons	Unpaved	169	3,752	
Wastel avenue	Augusta avenue to Collins avenue		536.3			19.4		27.8					738.3		1,304 94	P. Flanigan & Sons	Unpaved	043	766	
Augusta avenue	Wastel avenue to Potter avenue		1,328.7			4.2		24.2					2,014	926	3,224 82	P Flanigan & Sons	Unpaved	.086	2,018	
Fourteenth street	Clifton avenue to Winds r Mill road	828.1				171		249.3			1,780.7				4,762 00	F. E. Schneider Paving Co.	Unpaved	686	2,030	
Twelfth street	North avenue to Clifton avenue	1,500				215		270.8	1,451.6	2,000 7					11,105 29	Warren Bros. Co	Unpaved and cobble	163	1,816	
Polk street	Gotsuch avenue to Cromwell street	400.2				47		78.6		685.6					1,894 94	Warren Bros Co	Unpaved	.030	704	
Valley street	Gotsuch avenue to Cromwell street	405.2				47		78.5		626					1,865 73	Warren Bros Co	Unpaved	.030	705	
Twenty-fifth street	Maryland avenue to St. Paul street	1,137.8		72.6	320.1	84.5		254.1			3,017.3				7,637 71	F. E. Schneider Paving Co.	Unpaved	139	3,261	
Penlan Terrace	Garrison avenue to western city line	2,375.4				60.8		4,717.6						1,573	11,503 39	P. Flanigan & Sons	Unpaved	201	4,718	
Ridgewood avenue	Garrison avenue to western city line	2,334.0				111.5		360.1		4,426.3				2,800	13,153 46	Warren Bros. Co	Unpaved	204	4,795	
Belvidere avenue	Gotsuch avenue to western city line	2,473.3				67.0		5,014						2,092	13,085 86	P. Flanigan & Sons	gravel and cobble	210	5,001	
Chestnut Hill avenue	Youngs road to Old York road	975				128		168.1		858				363	3,004 11	Wm M Elder	Paved and cobble	043	1,021	
Brunswick street	Frederick road to Gwynns Run bridge	3,880.9				144.7		529.9	2,408.5	3,500 7				1,543	21,358 05	Warren Bros. Co	Paved and cobble	.281	6,589	
Irving avenue	Frederick road to Mosher street		1,130.7			24		59.4	388.9				2,284.9	1,342	3,775 13	J. C. Leonard	gravel and cobble	100	2,344	
Clifton avenue	Twelfth road to the last east and Sixteenth street	3,803.7				227.7		554.9		4,471 4				4,560	27,940 06	Warren Bros Co	gravel and cobble	380	8,916	
Potter avenue	Erie avenue to Y rk avenue		1,203.8			66.7		15.5	6,597.4				1,917.4	3,075	3,984 65	J C Leonard	Unpaved	052	1,913	
Edmondson avenue	Second avenue to Gwynns Falls bridge	5,783.8				2,015.7		1,222.0			14,640.5			42,520	71,661 23	F E Schneider Paving Co	gravel and cobble	957	22,455	
Auchentorly Terrace	Oram avenue to Gwynns Falls bridge					87.6		524			6,848.2			2,080	16,555 14	Filbert Paving and Cons Co	Unpaved	114	2,723	
Mondawmin avenue	Auchentorly Terrace to Reisterstown road	3,000 6				148.3		270.4			6,161.5			5,419	14,913 08	Wm M Elder	Unpaved	256	6,434	
Pen Lucy avenue	Old York road to Lowndes avenue	1,205.1				90.7		1,721.8						563	3,800 62	Wm M Elder	Unpaved	091	2,342.8	21118
Pentalon street	Eadenon street to Privette street					100.6		201.4							4,107 05	Filbert Paving and Cons. Co.	Unpaved	1.032	24,685	
Poplar Grove street	Edmondson avenue to Westwood avenue	9,153				1,550		1,868	5,119		17,758			52,555	76,999 20	F. E. Schneider Paving Co	Unpaved	1.032	24,685	
Cokesbury avenue	Adams street to 400 feet northward	602				60		1,238						1,000	3,851 38	Consolidated Engineering Co	gravel	053	1,238	
Keyworth avenue and alley	Park Heights avenue to Reisterstown road	835				748		200					2,030	2,000	4,040 00	David M Andrews Contr'g Co	Unpaved	095	2,280	
	Totals	203,040.5	30,143.5	10,258.2	19,079	23,635	26,280	100,171.2	127,711.4	193,771.2	111,082.2	7,081	21,958.6	472,487.3	$1,780,825 07			26.79	631,876.3	21118

ANNUAL REPORT

OF THE

Commissioner of Street Cleaning

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

OFFICERS AND EMPLOYEES

OF THE

STREET CLEANING DEPARTMENT

FOR THE YEAR 1911.

WILLIAM A. LARKINS,
Commissioner of Street Cleaning.

MICHAEL DOONAN,
General Superintendent Street Cleaning Division.

B. PRESTON USILTON,
General Superintendent Sanitary Division.

FREDERICK G. WHELAN,
Chief Clerk and Paymaster.

SAMUEL C. MANN,
Assistant Clerk.

WILLIAM E. ANDERSON, Jr.,
Assistant Clerk.

C. B. BARAKAT,
Stenographer.

FRANK ROCHESTER,
Telephone Clerk.

DISTRICT SUPERINTENDENTS—Street Cleaning Division.

WILLIAM WIEBKING,
First District.

JOHN HUNT,
Second District.

JAMES C. CALLAHAN,
Third District,

THOMAS M. ZEHNTER,
Fourth District.

B. T. SARBER,
Fifth District.

JOHN MURRAY,
Sixth District.

EDWARD F. CALLAHAN,
Seventh District.

JAMES CROUCH,
Superintendent of Machine Sweeping.

THOMAS L. HINES,
Inspector.

WILLIAM FABIZAK,
Assistant Inspector.

PETER HOLDEN,
Inspector Caroline St. Dump.

DISTRICT SUPERINTENDENTS—Sanitary Division.

JOHN HOLDEN,
Central District.

JOHN E. GIST,
Western District.

WILLIAM P. FANNIN,
Northern District.

JAMES P. KANE,
Southern District.

REPORT

DEPARTMENT OF PUBLIC SAFETY,

OFFICE OF COMMISSIONER OF STREET CLEANING,

CITY HALL,

BALTIMORE, January 1, 1912.

To the Honorable Mayor and City Council of Baltimore.

GENTLEMEN:

I present herewith my report for the year ending December 31, 1911, with appended tables showing the work done, the number of employees and the cost of each branch of the Department.

The total appropriation for the year was $883,676; total expenditures were $830,385.02. The money received from the sale of street dirt and other miscellaneous refuse during the year amounted to $2,978.98.

The Department is devoting particular attention to the separation of garbage from ashes and refuse to the total exclusion of the former from the city and suburban ash dumps, thus putting an end to depositing kitchen and household refuse on the low grounds on dumps intended for building purposes.

In this connection, I have had considerable assistance from Dr. Bosley, the Commissioner of Health.

The Department has had considerable trouble in making collection of garbage and refuse from households in the sections where the contractors of the Sewerage Commission are doing their work; the alleys being torn up and impassable

for weeks at a time. The garbage inspectors visit the householders and request that the refuse be placed in an accessible place for the collector, and, in this way, we are able to make collections for the time being.

The ordinance requiring householders to separate garbage from ashes and refuse is being rigidly enforced as being the most necessary requisite for the sanitary disposition of perishable waste. The Southern Product Company, having the contract for the reduction of garbage at the plant situated at Bodkin Creek, are complying with the terms of their contract in the most satisfactory manner and, from a sanitary standpoint, it is one of the most complete and up-to-date reduction plants of its kind in the country today.

The Department has been seriously handicapped by the gross carelessness of storekeepers and their employees, who sweep paper and other waste into the streets and alleys in direct violation of the law. This practice is also prevalent in the various market houses; however, the Department is endeavoring to put a stop to this practice and is receiving the necessary assistance from the marshal of police.

As a means of keeping the streets clear of paper and fruit parings cast by the public, the Department has had placed one hundred additional cans on the street corners for persons to drop this rubbish into, and the Department has had the hearty co-operation of the Women's Civic League in this matter, as well as other matters of a sanitary viewpoint affecting the health and cleanliness of the city.

During the year, all the macadam roads around the city were oiled with an emulsion for laying dust furnished by the Headley Good Roads Company under contract at 9½ cents in tank cars, delivered at the yards of Patrick Flanigan & Sons on Kate avenue, thus effecting a great saving to the city by avoiding the shipment of this oil in barrels or iron drums. The contract was advertised for and awarded to Messrs. Flanigan & Sons for the unloading of these tank cars and the distributing of

this emulsion in iron drums wherever needed on wagons especially constructed for that purpose and applied in two sprinkling wagons designed by the contractor for that particular purpose. The contract was carried out in the most efficient manner by the contractors with the result that the office has received very few complaints from the public about dust on these roads. The total amount expended for this work amounted to $8,211.83, showing a cost of 2⅓ cents per square yard for 351,896 square yards treated.

The Department was in receipt of numerous complaints during the summer months from dust, which was occasioned by the Water Department having requested us to discontinue the use of water for sprinkling purposes and flushing gutters, sewer inlets and alleys. The use of the washing machines on the smooth pavements was discontinued in order to comply with the above request, which was occasioned by the long drought.

The Department has endeavored to clean alleys, public or private, so that a vehicle can pass through, at least once or twice a week. I do not hesitate to say that these roughly paved alleys are not in sanitary condition after being cleaned, and cannot expected to be until such time as the new sewers are completed and the alleys properly drained and paved with a smooth surface.

The question of dumps for street dirt and refuse has long been a source of annoyance to the Department. For the past ten years this has been mentioned in the Department reports, thus showing the necessity for making some provision for this refuse. The dumps are getting farther away each year. The great amount of building going on in the city is causing the excavations from these sites to be given the preference on the dumps to our refuse.

The Department has a contract with the Arundel Sand and Gravel Company to scow away the refuse from the commercial part of the city, at 31 cents per cubic yard. Scows

are located at Back Basin, and the total expenditure for the scowing away of this refuse amounted to $22,288.69 for 71,899 cubic yards, which were deposited at the Old Quarantine grounds to fill in the low lands. I would, therefore, recommend a contract with the trolley or railroad companies to haul away in cars at night this refuse, which should be hauled to dumping stations or platforms in four different sections of the city, where the same could be handled without complaint from the citizens. This, along with the contract for scowing the refuse away from the central part of the city, seems to be the solution of the dump question. The increase in the appropriation for additional carts could and must be avoided by means of this kind.

The abnormal growth of Baltimore has placed her in the front rank of the country's principal cities, and in her methods and economics she should preserve pace with her sister municipalities. Therefore, the blocking system among the hand-broom sweepers in lieu of gang or section service has been introduced upon our improved streets and in the commercial part of the city. By the traffic block system, where the hand carts have been used with most satisfactory results, I would advocate the extension of the blocking method to the inclusion of all of Baltimore's improved streets, as soon as the same are completed by the Paving Commission. At the present time, the Department has eighty-eight men with hand carts working on improved pavements and in the commercial part of the city under the block system. This system, with the washing machines as an adjunct, will place our city in the front rank of our cleanest cities.

The Sanitary Division, which has charge of the collection of garbage and refuse as well as the collection of scavenger work, is doing efficient service, and, while the number of complaints received this year was slightly in excess of the previous year, the same is due to the impassable condition of alleys, occasioned by the improved sewers.

Repairs to carts and wagons are made in our own shops, Pratt street and Central avenue. The Department, through Mr. Clarence E. Stubbs, Inspector of Buildings, has had erected, during the month of December, a shed at Pratt street and Central avenue for the housing of twenty-four carts, and has, under the same Department head, begun the erection of two new stables—one at Greenmount avenue, south of North avenue, and one on the east side of Ridgely street, south of West street—which he expects the contractor will complete in the early spring.

The carts of this division have been provided with shovels, so as to gather up any garbage or litter that may be scattered on their routes. This has shown a marked improvement in the routes traversed by the Sanitary Division.

There has been considerable agitation in reference to a general cleaning up of the city in the springtime, and on account of no fund being provided for in the general appropriation for 1912, it seems that the Department will not be able to take up this extra work. A clean city is what its inhabitants look for, and I am sure that the present administration will give me some financial assistance in the early spring, in the event of having to take up this work. This work will cost approximately from $15,000 to $20,000.

Yours truly,

WILLIAM A. LARKINS, *Commissioner.*

Work Done in Sanitary Division, with Boundaries of Districts, Etc., 1911.

DISTRICT	Cu. Yds. Garbage Removed	Cu. Yds. Ashes Removed	No. Carts and Men Employed	Men Employed at Stables and Shop	BOUNDARIES OF DISTRICT.
CENTRAL John Holden, Supt ...	82,888	140,826	62	26	The stable for the maintenance of horses, storage of equipment, etc., of the Central District is known as Station "A," located at Pratt street and Central avenue. The boundaries of the Central District are as follows: Corner Preston and eastern city line south to water front, around water front to Pratt, west on north side of Pratt to Eutaw, north on east side of Eutaw to Biddle, east on south side of Biddle to Cathedral, north on east side of Cathedral to Preston, east on south side of Preston to Jones' Falls, south on west side of Falls to Biddle, east on south side of Biddle to Greenmount, south on west side of Greenmount to Chase, east on south side of Chase to Harford, south on west side of Harford to Eager, east on south side of Eager to Wolfe, north on east side of Wolfe to Preston, east on south side of Preston to place of beginning.
NORTHERN Wm. P. Fannin, Supt.	26,792	107,648	48	4	The stable for the maintenance of horses, storage of equipment, etc., of the Northern District is known as Station "E," located at 1812-1818 Greenmount avenue. The boundaries of the Northern District are as follows: Eastern city line and Preston street, west on north side of Preston to Wolfe, south on west side of Wolfe to Eager, west on north side of Eager to Harford, north on east side of Harford to Chase, west on north side of Chase to Greenmount, north on east side of Greenmount to Biddle, west on north side of Biddle to Jones' Falls, north on east side of Falls to Preston, west on north side of Preston to Cathedral, south on west side of Cathedral to Biddle, west on north side of Biddle to Eutaw Place, northwest on east side of Eutaw Place to Druid Hill Park, around park to east side of Reisterstown road, northwest on east side of Reisterstown road to Second avenue, east on east side of Second avenue to Park Heights avenue, northwest on east side of Park Heights avenue to northern city line, east to eastern city line, south to place of beginning.
WESTERN John E. Gist, Supt...	29,784	104,926	46	4	The stable for the maintenance of horses, storage of equipment, etc., of the Western District is known as Station "D," located at 1200-1208 N. Fulton avenue. The boundaries of the Western District are as follows: Western city line and Edmondson avenue, east on north side of Edmondson avenue to Gwynn's Falls, south on east side of falls to Frederick avenue, northeast on north side of Frederick avenue to Bentalou, north on west side of Bentalou to Saratoga, east on north side of Saratoga to Eutaw, north on west side of Eutaw to Eutaw Place, northwest on west side of Eutaw Place to Druid Hill Park, around park to south side of Reisterstown road, west on south side of Reisterstown road to Second avenue, north on west side of Second avenue to Park Heights avenue, northwest on west side of Park Heights avenue to northern city line, north to western city line, south to place of beginning.
SOUTHERN James P. Kane, Supt..	22,695	90 364	41	3	The stable for the maintenance of horses, storage of equipment, etc., of the Southern District is known as Station "C," located at Gould and Covington streets. The boundaries of the Southern District are as follows: Light and Pratt, west on south side of Pratt to Eutaw, north on west side of Eutaw to Saratoga, west on south side of Saratoga to Bentalou, south on east side of Bentalou to Frederick avenue, southwest on south side of Frederick avenue to Gwynn's Falls, along west side of falls to Edmondson, west on south side of Edmondson to western city line, along western city line to southern city line, south along southern city line to water front, around water front to place of beginning.
TOTAL.....	162,159	443,764	197	37	

EXPENDITURES:

Pay rolls	$151,458 54
Feed	35,064 77
Shoeing	3,816 00
Stable rent	1,630 68
Veterinary	1,410 46
Sundries	2,306 61
Wagon and cart repairs	5,757 49
New carts	1,442 79
Horses and mules	5,000 00
Harness	1,378 95
Total	$209,865 60

FIRST DISTRICT.

Route.	No. Times Cleaned.	Sq. Ft. in Route.	Total Sq. Ft. Cleaned.
No. 1	53	942,420	49,948,260
No. 2	52	871,020	45,293,040
No. 3	25	1,123,800	28,095,000
No. 4	26	1,280,380	33,289,880
No. 5	52	1,266,950	65,881,400
No. 6	53	627,230	33,243,190
No. 6½	20	381,630	7,632,600
No. 7	24	1,430,100	34,322,400
No. 8	28	1,445,310	40,468,680
Total			338,174,650
Total square feet smooth pavements cleaned			258,187,300
Total square feet markets cleaned			27,207,400
Grand total			623,569,350

The First District comprises all of the territory bounded by Monument street to the water front, and from Central avenue to eastern city line.

The routes of the First District are bounded as follows:

No. 1, Monument street to Baltimore street; Central avenue to Broadway.

No. 2, Baltimore street to Canton avenue; Central avenue to Broadway.

No. 3, Monument street to Orleans street; Broadway to East avenue.

No. 4, Orleans street to Baltimore street; Broadway to East avenue.

No. 5, Baltimore street to Canton avenue; Broadway to Patterson Park avenue.

No. 6, Canton avenue to the water front; Bond street to Chester street.

No. 6½, Bond street to Central avenue; Canton avenue to water front.

No. 7, Chester street to Lakewood avenue; Eastern avenue to Boston street.

No. 8, Lakewood avenue to East avenue; Fait avenue to Boston street.

SECOND DISTRICT.

Route.	No. Times Cleaned.	Sq. Ft. in Route.	Total Sq. Ft. Cleaned.
No. 1	51	1,579,450	80,551,950
No. 2	25	1,017,490	25,447,250
No. 2½	50	240,800	12,040,000
No. 3	28	1,154,065	32,313,820
No. 4	26	1,115,865	29,012,490
No. 5	26	1,516,180	39,420,680
No. 6	25	1,138,360	28,459,000
No. 7	26	1,210,400	31,470,400
No. 8	26	1,330,900	34,603,400
No. 9	30	1,199,450	35,983,500
No. 10	27	1,409,600	38,059,200
Total			387,361,690
Total square feet smooth pavements cleaned			386,838,400
Total square feet markets cleaned			7,940,600
Grand total			782,140,690

The Second District comprises all the territory bounded by North avenue to Monument street, and from Cathedral street to the eastern city line.

The routes of the Second District are bounded as follows:

No. 1, Monument street to Preston street; Greenmount avenue to Cathedral street.

No. 2, Preston street to North avenue; Greenmount avenue to Falls road.

No. 2½, Maryland avenue from Preston street to North avenue; Charles street from Preston street to North avenue; Falls road from Preston street to North avenue; Lafayette avenue from Charles street to Maryland avenue; Oliver street from Charles street to Maryland avenue.

No. 3, Monument street to Hoffman street; Greenmount avenue to Aisquith street.

No. 4, Ensor street to Caroline street; Preston street to North avenue.

No. 5, Monument street to Preston street; Aisquith street to Caroline street.

No. 6, Monument street to North avenue; Caroline street to Broadway.

No. 7, Monument street to Chase street; Broadway to Patterson Park avenue.

No. 8, Eager street, Gay street and Patterson Park avenue boundaries.

No. 9, Broadway, North avenue and Gay street boundaries.

No. 10, Monument street to North avenue; Patterson Park avenue to Loney's lane.

THIRD DISTRICT.

Route.	No. Times Cleaned.	Sq. Ft. in Route.	Total Sq. Ft. Cleaned.
No. 2	54	955,940	51,620,760
No. 3	50	612,120	30,606,000
No. 4	53	784,250	41,565,250
No. 5	60	1,449,470	86,968,200
No. 6	51	679,920	34,775,920
No. 7	50	807,690	40,384,500
Total			285,920,630
Total square feet smooth pavements cleaned			1,257,597,280
Grand total			1,543,517,910

The Third District comprises all the territory bounded by North avenue to the northern city line, and from the eastern to the western city line.

The routes of the Third District are bounded as follows:

No. 2, North avenue from Smallwood street to Oak street, etc.

No. 3, North avenue to Twenty-second street; York road to Harford avenue.

No. 4, North avenue to Twenty-fifth street; St. Paul street to Boone street.

No. 5, North avenue to Twenty-ninth street; St. Paul street to Jefferson place.

No. 6, Eutaw Place to Mt. Royal Terrace; North avenue to Druid Hill Park.

No. 7, Eutaw Place to Fulton avenue; North avenue to Orem's lane.

FOURTH DISTRICT.

Route.	No. Times Cleaned.	Sq. Ft. in Route.	Total Sq. Ft. Cleaned.
No. 1	50	1,057,450	52,872,500
No. 2	51	879,870	44,873,370
No. 3	40	1,181,010	51,240,400
No. 4	40	1,223,540	48,941,600
No. 5	52	1,200,030	62,401,560
No. 6	40	1,116,060	44,642,400
No. 7	53	1,406,300	74,533,900
Total			379,505,730
Total square feet smooth pavements cleaned			493,657,347
Total square feet markets cleaned			19,603,896
Grand total			892,766,973

The Fourth District comprises all of the territory bounded by North avenue to Lafayette avenue, to Pennsylvania avenue, to Franklin street, to Howard street, to Monument street, and from Mt. Royal avenue and Cathedral street to western city line.

The routes of the Fourth District are bounded as follows:

No. 1, Franklin street to Biddle street; Pennsylvania avenue to Cathedral street.

No. 2, Biddle street to Dolphin street; Pennsylvania avenue to Maryland avenue.

No. 3, Dolphin street to Wilson street; Pennsylvania avenue to Mt. Royal avenue.

No. 4, Wilson street to North avenue; Pennsylvania avenue to John street.

No. 5, Lafayette avenue to Laurens street; Pennsylvania avenue to Monroe street.

No. 6, Laurens street to North avenue; Pennsylvania avenue to Monroe street.

No. 7, Pennsylvania avenue, Madison avenue, Linden avenue, Cathedral street, etc.

FIFTH DISTRICT.

Route.	No. Times Cleaned.	Sq. Ft. in Route.	Total Sq. Ft. Cleaned.
No. 1	52	941,189	48,941,360
No. 1½	52	1,156,880	60,157,760
No. 2	25	1,062,453	26,561,325
No. 3	25	1,116,579	27,914,475
No. 4	20	1,156,520	23,130,400
No. 5	20	1,167,115	23,342,300
No. 6	26	851,568	22,140,768
No. 7	26	891,230	23,171,980
No. 8	52	863,125	44,882,500
No. 9	26	951,500	24,739,000
Total			324,981,868
Total square feet smooth pavements cleaned			170,741,340
Total square feet markets cleaned			53,799,124
Grand total			549,522,332

The Fifth District comprises all the territory bounded by Lafayette avenue, Pennsylvania avenue, Franklin street to Pratt street, and from Howard street to the western city line.

The routes of the Fifth District are bounded as follows:

No. 1, Franklin street to Pratt street; Howard street to Pearl street.

No. 1½, the same as No. 1, with the addition of a few streets.

No. 2, Greene street to Schroeder street; Saratoga street to Pratt street.

No. 3, Schroeder street to Fulton avenue; Lexington street to Pratt street.

No. 4, Baltimore street to Pratt street; Fulton avenue to Bentalou street.

No. 5, Baltimore street to Lafayette avenue; Fulton avenue to P., B. & W. R. R. tracks.

No. 6, Franklin street to Lexington street; Fremont avenue to Fulton avenue.

No. 7, Lafayette avenue to Saratoga street; Pennsylvania avenue to Fremont street.

No. 8, Baltimore street, Fulton avenue, Frederick avenue, Poppleton street.

No. 9, Lafayette avenue to Franklin street; Fremont avenue to Fulton avenue.

SIXTH DISTRICT.

Route.	No. Times Cleaned.	Sq. Ft. in Route.	Total Sq. Ft. Cleaned.
No. 1	110	1,083,070	119,137,700
No. 2	104	962,325	100,081,800
No. 3	102	599,770	61,176,540
No. 4	53	1,598,670	84,729,510
No. 5	150	1,704,490	255,673,500
No. 6	111	1,650,790	183,237,690
Total			804,036,740
Total square feet markets cleaned			35,295,624
Grand total			839,332,364

The Sixth District comprises all of the territory bounded by Monument street to the water front, and from Central avenue to Howard street.

The routes of the Sixth District are bounded as follows:

No. 1, Baltimore street to Lancaster street; Central avenue to Jones Falls.

No. 2, Calvert, Monument and Gay streets; Gay, Front and Baltimore streets.

No. 3, Baltimore street to Monument street; Central avenue to Front and Gay streets.

No. 4, Baltimore street to Saratoga street; Howard street to Charles street.

No. 5, Howard street to Paca street; Franklin street to Camden street.

No. 6, Baltimore street to Monument street; Howard street to Calvert street.

SIX AND ONE-HALF DISTRICT.

Route.	No. Times Cleaned.	Sq. Ft. in Route.	Total Sq. Ft. Cleaned.
No. 1	302	1,945,975	597,684,450
Docks	....	.....	14,225,250
Total			611,919,700
Total square feet markets cleaned			62,400,000
Grand total			674,319,700

District Six and One-half comprises all the territory bounded by Baltimore street to Pratt street, and from Howard street to Jones Falls.

SEVENTH DISTRICT.

Route.	No. Times Cleaned.	Sq. Ft. in Route.	Total Sq. Ft. Cleaned.
No. 1	25	708,700	17,717,500
No. 2	26	1,422,690	36,989,900
No. 3	110	1,554,990	171,048,900
No. 4	52	1,242,280	64,598,560
No. 6	53	1,463,990	77,591,470
No. 7	52	1,317,450	68,507,400
No. 8	27	1,373,940	37,096,380
Total			473,550,110
Total square feet smooth pavements cleaned			46,589,100
Total square feet markets cleaned			22,337,548
Grand total			542,476,758

The Seventh District comprises all the territory bounded by Pratt street to the southern city line, and from the water front to the western city line.

The routes of the Seventh District are bounded as follows:

No. 1, Fort avenue from Lawrence street to the Fort gate and all paved streets at Locust Point.

No. 2, York street to Randall street; Light street to Covington street.

No. 3, Lee street to Donaldson street; Light street to Hanover street.

No. 4, Pratt street to Ostend street; Hanover street to Warner street.

No. 5, Light street to Paca street; Pratt street to Lee street.

No. 6, Pratt street to Columbia avenue; Howard street to Bush street.

N. 7, Eutaw and Warner streets to Columbia avenue; Camden street to B. & O. R. R.

No. 8, Carey street to Smallwood street; Pratt street to railroad tracks.

TRAFFIC SQUAD.

Square feet in district, 997,600; number times cleaned, 301; total square feet cleaned, 300,277,600.

The Traffic Squad patrols the business section, taking all streets from Franklin street to Lexington street, and from Eutaw street to Gay street.

TABLE A.

REPORT OF WORK DONE IN THE STREET CLEANING DIVISION, SHOWING NUMBER OF CARTS EMPLOYED IN EACH SEPARATE DISTRICT, TOTAL

MONTH ENDING.	DISTRICT NO. 1. SUPT.	Total Number of Loads of Street Dirt, Sand, Snow, etc., Collected and Removed.	Cost of Collecting and Removing Street Dirt, Sand, Snow, etc.
1911.			
January 31	Wm. Wiebking	5,855	$3,381 00
February 28	" "	7,536	2,831 00
March 31	" "	4,721	2,670 00
April 30	" "	1,824	2,558 00
May 31	" "	2,055	3,171 50
June 30	" "	1,632	2,584 50
July 31	" "	2,099	3,435 00
August 31	" "	1,661	2,748 00
September 30	" "	1,748	2,738 00
October 31	" "	2,206	3,489 00
November 30	" "	1,767	2,794 50
December 31	" "	2,285	3,524 00
Total for First District		35,389	$35,924 50

TABLE A.

NUMBER OF LOADS COLLECTED AND REMOVED, NUMBER OF MEN EMPLOYED, COST OF SAME FOR TOOLS AND INCIDENTALS FOR 1911.

Amount Expended for Sweeping Machines, Sprinklers and Repairs.	Amount Expended for Tools, etc.	Number of Street Carts and Men Employed.	No. of Scrapers and Sweepers Employed.	Total Number of Loads of all Kinds.	Total Amount of Expenditures.
$454 86	$67 00	21	30	5,855	$3,902 86
566 10	60 00	31	40	7,536	3,457 10
539 55	48 25	20	31	4,721	3,257 80
558 62	45 00	16	30	1,824	3,161 62
615 00	46 50	16	29	2,055	3,833 00
488 00	48 00	17	32	1,632	3,120 50
683 35	50 00	17	32	2,099	4,168 35
555 25	52 50	17	32	1,661	3,355 75
417 75	61 00	18	31	1,748	3,216 75
508 20	63 50	18	32	2,206	4,060 70
415 00	65 50	18	32	1,767	3,275 00
516 00	65 20	18	32	2,285	4,105 50
$6,317 68	$672 45	.....	.....	35,389	$42,914 63

TABLE A—Continued.

Monthly Statement of Work Done in the Street Cleaning Division,

Month Ending.	District No. 2. Supt.	Total Number of Loads of Street Dirt, Sand, Snow, etc., Collected and Removed.	Cost of Collecting and Removing Street Dirt, Sand, Snow, etc.
1911.			
January 31.....	M. Doonan.....	4,566	$3,501 50
February 28.....	" "	8,472	2,962 50
March 31.....	" "	4,191	2,786 00
April 30.....	" "	1,694	2,674 00
May 31.....	" "	2,122	3,352 50
June 30.....	" "	1,655	2,686 00
July 31.....	" "	1,900	3,363 00
August 31.....	" "	1,728	2,700 00
September 30.....	" "	1,565	2,655 00
October 31.....	" "	2,098	3,410 50
November 30.....	John Hunt.....	1,684	2,838 00
December 31.....	" "	1,993	3,608 00
Total for Second District.....		33,668	$36,537 00

TABLE A—Continued.

with Cost of Same in Each Separate District for the Year 1911.

Amount Expended for Sweeping Machines, Sprinklers and Repairs.	Amount Expended for Tools, etc.	Number of Street Carts and Men Employed.	No. of Scrapers and Sweepers Employed.	Total Number of Loads of all Kinds.	Total Amount of Expenditures.
$455 30	$67 00	24	30	4,566	$4,023 80
464 67	62 20	27	43	8,472	3,589 37
541 35	45 75	27	43	4,191	3,373 10
530 45	46 50	18	33	1,694	3,250 75
623 75	48 00	18	33	2,122	4,024 25
488 75	51 00	16	33	1,655	3,225 75
681 25	48 00	16	33	1,900	4,092 25
537 15	46 50	16	33	1,728	3,283 65
412 15	65 50	16	33	1,565	3,132 65
512 77	67 75	16	33	2,998	3,991 02
410 00	68 00	18	33	1,681	3,316 00
511 50	68 00	18	33	1,993	4,187 50
$6,269 09	$684 20	.....	.....	33,668	$43,490 29

TABLE A—Continued.

Monthly Statement of Work Done in the Street Cleaning Division,

Month Ending.	District No. 3. Supt.	Total Number of Loads of Street Dirt, Sand, Snow, etc., Collected and Removed.	Cost of Collecting and Removing Street Dirt, Sand, Snow, etc.
1911.			
January 31.....	James C. Callahan.....	4,641	$3,395 50
February 28.....	" "	11,709	2,985 00
March 31.....	" "	7,809	2,754 50
April 30.....	" "	1,063	2,537 00
May 31.....	" "	1,213	3,179 50
June 30.....	" "	1,082	3,040 50
July 31.....	" "	1,059	3,581 26
August 31.....	" "	934	2,850 00
September 30.....	" "	847	2,805 38
October 31.....	" "	1,313	3,578 00
November 30.....	" "	1,053	2,931 63
December 31.....	" "	1,092	3,700 87
Total for Third District.....		33,815	$37,339 14

TABLE A—Continued.

with Cost of Same in Each Separate District for the Year 1911.

Amount Expended for Sweeping Machines, Sprinklers and Repairs.	Amount Expended for Tools, etc.	Number of Street Carts and Men Employed.	No. of Scrapers and Sweepers Employed.	Total Number of Loads of all Kinds.	Total Amount of Expenditures.
$454 57	$67 00	17	40	.....	$3,917 07
563 45	64 25	19	50	.....	3,612 70
548 25	40 50	19	50	.....	3,343 25
535 50	39 50	9	42	.....	3,112 00
620 25	43 00	10	42	.....	3,842 75
528 25	44 00	14	57	.....	3,612 75
667 65	47 50	14	57	.....	4,296 41
554 75	49 50	14	57	.....	3,554 25
411 60	65 50	10	48	.....	3,282 48
508 47	67 50	10	48	.....	4,153 97
403 00	67 50	12	48	.....	3,402 13
510 50	65 50	12	50	.....	4,276 87
$6,306 24	$661 25	.....	.....	.....	$44,306 63

TABLE A—Continued.

Monthly Statement of Work Done in the Street Cleaning Division,

Month Ending.	District No. 4. Supt.	Total Number of Loads of Street Dirt, Sand, Snow, etc., Collected and Removed.	Cost of Collecting Removing and Street Dirt, Sand, Snow, etc.
1911.			
January 31.....	Thomas M. Zehnter.....	6,662	$3,201 50
February 28.....	" "	12,755	2,768 50
March 31.....	" "	5,515	2,594 00
April 30.....	" "	1,281	2,515 00
May 31.....	" "	1,988	3,122 50
June 30.....	" "	1,555	2,478 00
July 31.....	" "	1,904	3,285 50
August 31.....	" "	1,564	2,625 00
September 30.....	" "	1,603	2,631 50
October 31.....	" "	2,178	3,353 00
November 30.....	" "	1,769	2,791 00
December 31.....	" "	1,978	3,463 00
Total for Fourth District.....		40,752	$34,828 50

TABLE A—Continued.

with Cost of Same in Each Separate District for the Year 1911.

Amount Expended for Sweeping Machines, Sprinklers and Repairs.	Amount Expended for Tools, etc.	Number of Street Carts and Men Employed.	No. of Scrapers and Sweepers Employed.	Total Number of Loads of all Kinds.	Total Amount of Expenditures.
$457 95	$65 00	22	31	6,662	$3,724 45
555 00	64 25	26	42	12,755	3,387 75
554 80	49 50	26	42	5,515	3,198 30
529 35	48 25	17	32	1,281	3,092 60
631 50	51 00	17	32	1,988	3,805 00
561 51	48 00	15	31	1,555	3,087 50
706 00	50 50	15	31	1,904	4,042 00
550 80	48 00	15	31	1,564	3,223 80
411 70	65 00	15	31	1,604	3,108 20
511 70	67 00	17	34	2,178	3,931 70
416 50	67 00	17	34	1,769	3,274 50
507 00	65 00	17	33	1,978	4,035 00
$6,393 80	$688 50	.....	.....	40,752	$41,910 80

TABLE A—Continued.

Monthly Statement of Work Done in the Street Cleaning Division,

Month Ending.	District No. 5. Supt.	Total Number of Loads of Street Dirt, Sand, Snow, etc., Collected and Removed.	Cost of Collecting and Removing Street Dirt, Sand, Snow, etc.
1911.			
January	B. T. Sarber	6,238	$3,387 00
February	" "	11,590	2,749 50
March	" "	4,822	2,525 50
April	" "	1,883	2,453 00
May	" "	2,364	3,062 00
June	" "	1,879	2,449 50
July	" "	2,500	3,440 00
August	" "	2,007	2,743 00
September	" "	1,906	2,703 00
October	" "	2,178	3,353 00
November	" "	2,136	2,851 00
December	" "	2,531	3,586 75
Total for Fifth District		42,052	$35,303 25

TABLE A—Continued.

with Cost of Same in Each Separate District for the Year 1911.

Amount Expended for Sweeping Machines, Sprinklers and Repairs.	Amount Expended for Tools, etc.	Number of Street Carts and Men Employed.	No. of Scrapers and Sweepers Employed.	Total Number of Loads of all Kinds.	Total Amount of Expenditures.
$455 08	$65 00	26	30	6,238	$3,907 08
562 41	62 25	32	38	11,590	3,474 16
531 94	52 00	32	38	4,822	3,109 44
545 10	54 00	20	28	1,883	3,052 10
627 61	52 00	20	28	2,364	3,741 61
526 90	50 50	18	28	1,879	3,026 90
679 75	49 50	18	28	2,500	4,169 25
531 00	57 25	18	28	2,007	3,331 25
413 30	65 00	18	26	1,906	3,181 30
511 70	67 00	18	26	2,178	3,931 70
407 00	67 00	19	31	2,136	3,325 00
510 00	65 50	19	31	2,531	4,162 25
$6,301 79	$707 00	.....	.....	42,052	$42,312 04

TABLE A—Continued.

Monthly Statement of Work Done in the Street Cleaning Division,

Month Ending.	District No. 6. Supt.	Total Number of Loads of Street Dirt, Sand, Snow, etc., Collected and Removed.	Cost of Collecting and Removing Street Dirt, Sand, Snow, etc.
1911.			
January	John E. Gist	7,393	$4,396 00
February	" "	29,460	3,906 00
March	" "	4,493	3,378 00
April	" "	2,251	3,424 50
May	John P. Murray	2,372	4,423 00
June	" "	1,855	3,464 00
July	" "	2,419	4,338 00
August	" "	1,974	3,478 00
September	" "	2,088	3,398 00
October	" "	2,465	4,359 00
November	" "	1,915	3,526 00
December	" "	2,364	4,397 50
Total for Sixth District		61,049	$46,488 00

TABLE A—Continued.

with Cost of Same in Each Separate District for the Year 1911.

Amount Expended for Sweeping Machines, Sprinklers and Repairs.	Amount Expended for Tools, etc.	Number of Street Carts and Men Employed.	No. of Scrapers and Sweepers Employed.	Total Number of Loads of all Kinds.	Total Amount of Expenditures.
$454 75	$63 00	26	44	.....	$4,913 75
507 52	65 75	52	60	.....	4,539 27
550 65	48 25	52	60	.....	3,976 90
532 70	46 00	25	42	.....	4,003 20
672 71	48 06	24	45	.....	5,143 77
579 50	49 50	25	40	.....	4,093 00
730 70	45 00	25	40	.....	5,113 70
584 95	47 50	25	40	.....	4,110 45
416 00	65 00	25	40	.....	3,879 00
513 20	66 00	25	40	.....	4,938 00
409 25	65 50	20	45	.....	4,000 75
510 25	65 50	20	45	.....	4,973 25
$6,522 18	$675 06	.....	.....	.....	$53,685 24

TABLE A—Continued.

Monthly Statement of Work Done in the Street Cleaning Division,

Month Ending.	District No. 6½. Foreman.	Total Number of Loads of Street Dirt, Sand, Snow, etc., Collected and Removed.	Cost of Collecting and Removing Street Dirt, Sand, Snow, etc.
1911.			
January 31	Thos. O'Neill	3,023	$2,667 50
February 28	" "	6,960	2,808 75
March 31	" "	3,624	2,461 00
April 30	" "	1,754	2,134 00
May 31	" "	2,240	2,654 00
June 30	" "	1,766	3,132 50
July 31	" "	2,127	2,655 00
August 31	" "	1,751	3,130 00
September 30	" "	1,758	2,128 00
October 31	" "	2,166	2,700 00
November 30	" "	1,795	2,132 00
December 31	" "	2,133	2,677 00
Total for 6½ District		31,097	$31,279 75

TABLE A—Continued.

with Cost of Same in Each Separate District for the Year 1911.

Amount Expended for Sweeping Machines, Sprinklers and Repairs.	Amount Expended for Tools, etc.	Number of Street Carts and Men Employed.	No. of Scrapers and Sweepers Employed.	Total Number of Loads of all Kinds.	Total Amount of Expenditures.
$358 25	$47 00	15	24	3,023	$3,072 75
397 45	42 50	59	62	6,960	3,244 70
303 60	37 50	59	62	3,624	2,802 10
271 75	20 00	14	27	1,754	2,425 75
301 77	25 00	14	26	2,240	2,980 77
254 50	24 50	14	25	1,766	2,411 50
320 10	25 50	14	25	2,127	3,000 60
259 75	23 00	14	25	1,751	2,412 75
252 32	32 00	14	25	1,758	2,412 32
318 15	30 00	14	25	2,166	3,048 15
413 25	65 00	14	26	1,795	2,610 25
516 00	65 50	14	26	2,133	3,258 50
$3,962 89	$437 50	.....	.....	31,097	$33,680 14

TABLE A—Continued.

Monthly Statement of Work Done in the Street Cleaning Division,

Month Ending.	District No. 7. Supt.	Total Number of Loads of Street Dirt, Sand, Snow, etc., Collected and Removed.	Cost of Collecting and Removing Street Dirt, Sand, Snow, etc.
1911.			
January	E. F. Callahan	7,582	$3,709 50
February	"	8,533	2,833 50
March	"	4,007	2,055 50
April	"	2,376	2,050 00
May	"	2,836	3,319 00
June	"	1,946	2,652 50
July	"	2,331	3,300 00
August	"	2,004	2,507 00
September	"	1,938	2,028 00
October	"	2,336	3,303 00
November	"	1,942	2,741 00
December	"	2,354	3,343 00
Total for Seventh District		40,385	$35,051 00

TABLE A—Continued.

with Cost of Same in Each Separate District for the Year 1911.

Amount Expended for Sweeping Machines, Sprinklers and Repairs.	Amount Expended for Tools, etc.	Number of Street Carts and Men Employed.	No. of Scrapers and Sweepers Employed.	Total Number of Loads of all Kinds.	Total Amount of Expenditures.
$461 83	$65 00	28	36	7,582	$4,236 33
568 76	66 50	27	39	8,533	3,468 70
539 90	42 75	27	39	4,007	3,228 15
547 30	42 25	31	18	2,376	3,248 55
627 99	47 50	31	28	2,836	3,994 49
521 65	47 50	31	28	1,946	3,221 65
654 75	49 50	19	31	2,331	4,004 25
540 80	43 75	19	30	2,004	3,101 55
411 90	65 50	19	30	1,938	3,105 40
511 60	65 00	19	30	2,336	3,879 60
414 00	65 50	19	32	1,942	3,220 50
500 00	65 00	19	32	2,354	3,908 00
$6,342 00	$665 75	.....	.....	40,385	$42,519 17

TABLE A—Concluded.

Monthly Statement of Work Done in the Street Cleaning Division,

Month Ending.	Traffic Squad. Foreman.	Total Number of Loads of Street Dirt, Sand, Snow, etc., Collected and Removed.	Cost of Collecting and Removing Street Dirt, Sand, Snow, etc.
1911.			
January 31.....	Chas. Langgood.....	306	$989 00
February 28.....	" "	338	794 00
March 31.....	" "	180	791 00
April 30.....	" "	186	783 00
May 31.....	" "	242	1,009 00
June 30.....	" "	182	819 00
July 31.....	" "	238	1,018 00
August 31.....	" "	192	811 00
September 30.....	" "	190	822 00
October 31.....	" "	230	1,000 00
November 30.....	" "	176	780 00
December 31.....	" "	226	986 00
Total for Traffic Squad.....		2,686	$10,602 00

TABLE A—Concluded.

with Cost of Same in Each Separate District for the Year 1911.

Amount Expended for Sweeping Machines, Sprinklers and Repairs.	Amount Expended for Tools, etc.	Number of Street Carts and Men Employed.	No. of Scrapers and Sweepers Employed.	Total Number of Loads of all Kinds.	Total Amount of Expenditures.
$159 80	$33 00	2	14	306	$1,181 80
151 17	31 00	2	14	338	976 17
145 69	25 50	2	14	180	962 19
153 25	19 50	2	14	186	955 75
191 00	27 50	2	14	242	1,227 50
132 70	29 00	2	14	182	980 70
147 50	30 00	2	14	238	1,195 50
125 50	28 50	2	14	192	965 00
123 50	32 00	2	14	190	977 50
158 75	33 00	2	14	230	1,191 75
126 50	34 00	2	14	176	940 50
166 00	34 00	2	14	226	1,186 00
$1,781 36	$357 00	.....	.....	2,686	$12,740 36

TABLE B.

Report of Work, Including All Expenditures in the Street Cleaning Department for Each of the Months of the Year Ending December 31, 1911, Also Amount of Receipts from Sale of Refuse, Etc.

1911 Months	Total No. of Loads of Garbage Removed	Total No of Loads of Ashes Removed	Total No. of Loads of Street Dirt, Sand, Snow, Ice, etc., Removed	Cost of Collecting Ashes, Garbage, Waste, etc.	Cost of Collecting and Removing Street Dirt, Sand, Snow, Ice, etc.	Incidental Expenses	Cost of Sweeping Machines, Sprinklers, Repairs, etc.	Salaries	Cost of Tools, Repairs, etc.	Cost of Removal of Street Dirt by Scows	Total Cost of Removal of Garbage	Cost of Sprinkling Roads, etc.	Total Cost Destruction of Weeds	Cost of Emergency Fund, Moving Snow, Ice, etc.	Cost of Cleaning Sewers and Inlets, Including Tools	Total cost Purchase of Sites and Erection of Stables.	Total No. of Loads Removed from Sewers and Inlets	Total No of Loads of All Kinds Removed	Total Amount of Expenditures	Total Amount of Money Received and Paid to Comptroller
January	2,397	22,183	46,266	$16,159 88	$28,628 50	$179 52	$15,491 50	$2,155 88	$675 94	$2,722 11	$5,491 60			$3,804 00	$3,804 00		2,100	72,946	$62,702 30	$165 27
February	2,301	20,935	97,353	10,078 22	21,795 00	272 87	12,276 00	2,178 31	535 16	3,520 30	5,101 60			3,594 25	3,180 05		2,030	122,749	01,398 00	130 31
March	2,774	25,083	39,362	16,014 67	21,852 50	220 58	12,402 00	2,178 38	405 50	2,580 13	5,100 00			1,094 50	3,033 00		2,140	70,259	57,830 47	266 08
April	2,045	19,188	14,312	18,425 13	21,837 50	215 41	12,530 00	2,178 38	407 71	2,452 41	5,201 66				3,111 60		2,110	38,204	57,802 45	165 01
May	3,817	20,565	17,432	16,574 38	27,293 50	295 76	15,730 00	2,182 41	443 89	1,897 51	5,166 66	$52 97			3,764 00		2,140	43,654	62,032 39	046 84
June	3,979	13,023	13,570	10,878 50	22,350 50	166 66	12,846 00	2,180 56	499 23	1,549 38	5,166 66	1,525 70			2,430 00	$165 00	2,070	33,492	57,173 00	192 84
July	4,577	12,786	16,577	20,801 46	22,708 88	98 02	13,165 88	2,186 64	579 13	1,502 88	5,201 66	2,244 29	$215 20		1,986 00	40 00	2,080	36,030	62,627 39	218 84
August	6,657	14,397	13,815	10,666 11	28,392 63	192 99	16,449 63	2,180 72	1,238 07	1,133 36	5,166 66	1,301 50	325 00		2,402 50	88 10	2,130	30,990	63,014 94	136 04
September	4,891	12,391	13,643	19,597 13	22,599 38	255 61	12,919 13	2,186 64	554 99	1,258 91	5,166 66	973 22	278 28		1,981 50	25 00	2,082	32,077	50,852 58	420 84
October	3,710	14,514	17,370	17,502 05	28,652 00	76 73	16,478 00	2,118 29	947 07	1,328 66	2,583 33	965 91	497 95		2,319 50	1,545 07	2,101	37,785	61,265 01	136 84
November	3,524	22,316	14,237	15,746 59	23,385 13	130 14	13,288 13	2,072 13	781 99	1,333 93	5,166 66	967 35			2,539 78	12,514 91	2,080	42,137	58,509 21	191 84
December	2,505	22,831	16,050	18,070 08	34,018 90	583 44	16,955 12	2,180 64	1,056 61	3,459 91	7,875 07	180 33		4,922 33	7,910 64		2,050	44,432	104,125 32	201 33
Total	43,957	221,982	320,893	$209,865 60	$303,240 42	$2,702 97	$170,546 39	$25,996 98	$7,948 59	$24,739 55	$62,500 00	$8,211 33	$1,317 33	$4,011 08	$38,548 97	$14,378 18	25,102	612,024	$700,351 02	$2,078 08

Note—Total number of loads of snow and ice removed in January and February, 1911, 110,280. Total cost, $50,333.50. Cost per load, 45 cents.

TABLE C.

FINANCIAL STATEMENT OF DEPARTMENT OF STREET CLEANING APPROPRIATIONS FROM JANUARY 1, 1911, TO DECEMBER 31, 1911.

	Amount of Appropriations.	Expended from January 1, 1910, to December 31, 1911.	Credit Balances, December 31, 1911.	Revenue from Sale of Refuse, etc.
Collection of ashes and garbage	$210,000 00	$209,865 60	$134 40	.....
Removal of garbage	62,500 00	62,500 00	.....	.....
Street carts and men	135,720 00	132,744 03	2,975 97	.....
Sweepers and scrapers	171,912 00	170,546 39	1,365 61	.....
Sweeping machines and sprinklers	60,284 00	60,243 02	40 98	.....
Cleaning sewers and inlets	38,685 00	38,548 97	136 03	.....
Tools and repairs	8,085 00	7,948 59	136 41	.....
Incidental expenses	2,720 00	2,702 97	17 03	.....
Laying dust and preserving roads	10,000 00	8,211 33	1,788 67	.....
Removal of waste	25,000 00	24,739 55	260 45	.....
Emergency Fund	10,000 00	9,611 08	388 92	.....
Destruction of weeds and grass	2,020 00	1,317 33	682 67	.....
Salaries	26,720 00	25,996 98	723 02	$2,978 98
Purchase of sites and erection of stables	59,000 00	14,378 18	.....	.....
Total	$822,626 00	$769,354 02	$8,650 16	$2,978 98

Total amount appropriations	$822,626 00
Total amount expended	769,354 02
Total unexpended balance	$8,650 16
Total revenue from sale of refuse	2,978 98
Total transferred to City Register	$11,629 14
Carried to 1912 from purchase of sites and erection of stables account	$44,621 82

TABLE D.

Summary, 1911.

Total number of cubic yards of garbage collected and removed	162,159
Total number of cubic yards of ashes and refuse collected and removed	443,764
Total number of cubic yards of street dirt, sand, etc., collected and removed	320,893
Total number of cubic yards removed from sewers and inlets	25,192
Total number of cubic yards of all kinds removed	952,008

Total amount paid for collection of garbage, ashes, etc	$209,865 60
Total amount paid for removal of garbage, etc	62,500 00
Total amount paid for removal of street dirt, sand, etc	303,290 42
Total amount paid for sweeping and sprinkling streets by machines	60,243 02
Total amount paid for tools and repairs	7,948 59
Total amount paid for incidental expenses	2,702 97
Total amount paid for salaries	25,996 98
Total amount paid for cleaning sewers and inlets, including tools	38,548 97
Total amount paid for sprinkling roads, etc	8,211 33
Total amount paid for removal of street dirt by scows	24,739 55
Total amount paid from Emergency Fund	9,611 08
Total amount paid for destruction of weeds	1,317 33
Total amount paid for site, erection of stables	14,378 18
Total amount paid for 1911	$769,354 02
Total amount received for sale of refuse	2,978 98

Total number of garbage carts and men employed in 1911	197
Total number of street carts and men employed in 1911	135
Total number of sweepers and scrapers employed in 1911	250
Total number of sewer men employed in 1911	35
Total number of machine drivers, etc	25
Stablemen, etc., Sanitary Division	37
Total	679

TABLE F.

TOTAL NUMBER OF SQUARE FEET OF STREETS SWEPT BY MACHINES EACH MONTH FROM JANUARY 1, 1911, TO DECEMBER 31, 1911.

MONTH.	SQUARE FEET.		AMOUNT.
January	188,654,164	Cost per month..	$3,174 87
February	115,647,693	Cost per month..	4,559 11
March	234,174,798	Cost per month..	4,285 55
April	259,259,872	Cost per month..	3,823 25
May	297,793,984	Cost per month..	4,361 11
June	301,761,521	Cost per month..	4,290 41
July	289,462,328	Cost per month..	4,972 24
August	263,527,442	Cost per month..	5,425 80
September	286,209,435	Cost per month..	5,155 26
October	311,279,095	Cost per month..	5,070 87
November	273,955,753	Cost per month..	4,891 14
December	207,350,483	Cost per month..	10,233 41
Total	3,029,076,568	Total cost...	$60,243 02

STATEMENT OF LIVE STOCK, DECEMBER 31, 1911.

MONTHS.	Bought.	Sold.	Died.
January	8	.....	1
February	8	.....	1
March	.....	4	3
April	.....	.....	.....
May	4	5	3
June	2	4	1
July	4	.....	2
August	10	.....	3
September	1	6	3
October	.....	1	2
November	.....	.....	1
December	14	.....	5
Total	51	20	25
On hand December 31, 1910	294		
	345		
Died and sold, 1911	45		
On hand December 31, 1911	300		

NUMBER OF DEAD ANIMALS, ETC., COLLECTED BY SCAVENGERS FOR 1911.

4,412 Dogs.
13,650 Cats.
837 Rats.
306 Fowls.
143 Rabbits.
220 Turtles.
23 Goats.
25 bbls. Crabs.
25 Guinea Pigs.
100 lbs. Meat.
½ Beef.
12 bbls. Fish.
5 Hogs.
4 Pigs.
4 Sheep.
5 Snakes.
5 lbs. Liver.
2 Cases of Eggs.
3 Monkeys.
2 doz. Terrapins.
2 Calves.
1 Polecat.
1 Possum.
4 Pigeons.
1 Fox.

CONTRACTS IN FORCE IN THE STREET CLEANING DEPARTMENT, DECEMBER, 31, 1911.

Contractor.	For.	Time.	Amount.	Expires.
Southern Product Co.....	Removal and final disposition of garbage, dead animals and market refuse.	Ten years from Jan. 1, 1908....	$646,000	Dec. 31, 1917.
Fred Beck & Co.....	Cylinder brooms.....	One year from Aug. 8, 1911....	$13.00 per broom.	Aug. 8, 1912.
Fred Beck & Co.....	16-inch brooms.....	One year from June 1, 1911....	$ 3.75 per dozen..	June 1, 1912.
Fred Beck & Co.....	30-inch brooms.....	One year from Aug. 21, 1911..	$ 7.65 per dozen..	Aug. 21, 1912.
Arundel Sand and Gravel Co.	Removal of street dirt by scow	One year from Aug. 8, 1911...	$ .31 per cu. yd..	Aug. 8, 1912.
Wm. Hopps Grain and Hay Co.	Hay and feed.....	Three months from Dec. 1. 1911	$11,974.50	March 1, 1912.
Headley Good Roads Co...	Preparation for laying dust and preserving macadam roads	One year from May 5, 1911....	$.09½ per gal. in tank cars; $.10½ in drums.....	May 5, 1912.
Thomsen Chemical Co.....	Preparation for destroying grass and weeds.....	One year from April 21, 1911..	$.24 per gallon....	April 21, 1912.

Wm. D. Gill & Sons..... (Schedule A.)	Lumber	One year from March 15, 1911.	$ 835.48	March 15, 1912.
Maryland Rubber Co.....	Hose and rubber supplies..	One year from March 15, 1911.	$2,665.99	March 15, 1912.
E. Scott Payne Co..... (Schedule C.)	Iron and steel.....	One year from April 1, 1911...	$ 563.85	April 1, 1912.
E. Scott Payne Co..... (Schedule D.)	General supplies.....	One year from March 15, 1911.	$2,555.01	March 15, 1912.
George Schmink ..... (Schedule E.)	Harness and leather.....	One year from March 15, 1911.	$1,420.07	March 15, 1912.
E. Scott Payne Co..... (Schedule F.)	Wagon and cart supplies..	One year from March 15, 1911.	$1,557.68	March 15, 1912.
E. Scott Payne Co..... (Schedule G.)	Tools and hardware.....	One year from March 15, 1911.	$ 431.15	March 15, 1912.
Bolton Bros..... (Schedule H.)	Paints and oils.....	One year from March 15, 1911.	$ 703.60	March 15, 1912.
Frances T. Lynch..... (Schedule I.)	Carts, cart bodies and sweeping machines.....	One year from March 15, 1911.	$4,437.86	March 15, 1912.

TWENTY-EIGHTH ANNUAL REPORT

OF THE

Board of Fire Commissioners

AND

FIFTY-THIRD ANNUAL REPORT OF THE FIRE DEPARTMENT

TO THE

Mayor and City Council of Baltimore

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

OFFICERS OF THE DEPARTMENT

FIRE COMMISSIONERS

RICHARD H. JOHNS, PRESIDENT

COL. ISRAEL ROSENFELD — SIDNEY T. MANNING

SECRETARY AND CLERK

PINKNEY W. WILKINSON

CHIEF ENGINEER

GEORGE W. HORTON

DEPUTY CHIEF ENGINEER

AUGUST EMRICH

DISTRICT ENGINEERS

First District	JAMES T. DUNN
Second District	JAMES A. CAMPBELL
Third District	FREDERICK BRANAN
Fourth District	E. LOUIS SHIPLEY
Fifth District	LEVIN H. BURKHARDT
Sixth District	JOHN KAHL
Seventh District	FIELDING H. LUCAS
Eighth District	MICHAEL A. LIND

SUPERINTENDENT OF MACHINERY

THOMAS H. MEUSHAW

ASSISTANT SUPERINTENDENT OF MACHINERY

JOHN N. BLETZER

SUPERINTENDENT OF FIRE ALARM TELEGRAPH

JAMES B. YEAKLE

REPORT

OFFICE OF THE BOARD OF FIRE COMMISSIONERS,

BALTIMORE, January 1, 1912.

To the Honorable the Mayor and City Council of Baltimore.

GENTLEMEN—The present Board of Fire Commissioners, having been appointed on October 2, 1911, for a term of four years, respectfully submit herewith the following as the Fifty-third Annual Report of the Fire Department of the City of Baltimore for the year ending December 31, 1911:

ADMINISTRATION.

The Fire Department of Baltimore is under the control of three Fire Commissioners, who are appointed by the Mayor for four-year terms. The Board at present consists of Richard H. Johns, President; Col. Israel Rosenfeld and Sidney T. Manning.

MANUAL FORCE.

The manual force of the Department consists of 851 men divided as follows:

1 Chief Engineer.
1 Deputy Chief Engineer.
8 District Engineers.
1 Superintendent of Machinery.
1 Assistant Superintendent of Machinery.
1 Superintendent of Fire Alarm Telegraph.
39 Engine Companies.
17 Truck Companies.
2 Fireboats.
2 Water Towers.
2 High Pressure Service Hose Companies.
Fire Alarm Service.

Appointments and Promotions.

The appointments in the service are made by the Fire Commissioners from an eligible list selected by a Special Examining Board. The Board is composed of the President of the Board of Fire Commissioners, Chief Engineer and one civilian appointed by the Mayor. Applicants must be between 21 and 40 years of age, of fixed size and must pass physical and mental examinations. Promotions are similarly made by the Fire Commissioners of men passed by the Examining Board.

No age limit is set at which members are regularly retired. The Charter provides for retiring at half pay for disabled or superannuated members after twenty years' service.

A surgeon is regularly employed to look after the physical condition of the members of the Department generally.

Districts.

The city is divided into eight districts, with each in charge of a District Engineer. The districts are laid out and cover about the same amount of built-up territory.

Apparatus.

Most of the engine companies have first-size engines, capable of discharging 1,100 gallons of water per minute and supplying four lines of hose. All companies have combination chemical engines and hose wagons carrying from 1,000 to 1,350 feet of 2½-inch hose and 250 feet of chemical hose, with reserve wagons carrying 1,200 feet of hose, which are brought to fire-ground on additional alarms from the same box.

The trucks are fully equipped of the Hayes design with Dahill raising devices, excepting combination chemical engines and trucks for the outlying districts, which also carry 750 feet of 2½-inch hose.

The Department has in service automobiles for chief officers, High Pressure Service, ambulance and supply trucks.

Horses.

All horses are kept in the best possible condition at Department Hospital, quarters of No. 10 Truck Company, Lafayette avenue, near Stricker street, under the supervision of a veterinarian employed for the purpose. A horse ambulance is stationed at respective quarters.

Quarters.

The Departmental quarters are roomy, well adapted for the purpose and in good condition.

Repair Shop.

A repair shop has been installed for over-hauling apparatus generally, under the supervision of the Superintendent of Machinery.

Fire Methods.

Whenever possible, fires are extinguished by means of chemical streams from combination wagons, but a line of 2½-inch hose is always led off to back up lighter streams. Shut-off nozzles are used, to which are attached reducers, for chemical hose. Fires are extinguished with least possible loss. Provision, in the shape of deluge sets and siamese connections, is provided for heavy fire duty.

Inspection of Buildings.

Officers of the Department inspect buildings in their respective districts for the purpose of familiarizing themselves with the construction of the same generally, as well as reporting all violations of the Building Laws.

Fire Alarm Service.

The Fire Alarm Telegraph Department is under the supervision of a superintendent, who reports to the Board of Fire

Commissioners, and is located in the City Hall. The instruments are modern and provide for the proper and efficient handling of alarms. There are 689 fire alarm boxes in service. Seventy-two per cent. of the wires of the system are underground.

Records.

The Board of Fire Commissioners are kept properly informed of the condition and doings of the Department by means of a complete system of reports and records.

Maintenance.

The expense for operating the Fire Department during the past year was $910,936.20, with improvements costing $85,362.36, and completion of installation of High Pressure Service of $193,011.06, making an expenditure for the year of $1,189,309.62.

High Pressure Service.

The High Pressure Service for the Fire Department will be completed and placed in service in March of the present year.

A Pumping Station of the most modern construction is located on South street, near Pratt. The equipment provides for the installation of three Allis-Chalmers, horizontal Corliss, twin, simple, non-condensing, crank and fly-wheel pumps with a capacity of 7,000 gallons per minute each, and one horizontal, duplex, direct-acting, compound, non-condensing pump with a capacity of 1,000 gallons per minute. There are three Edgemoor boilers of the inclined water-tube type. The pumps have a discharge capacity of 22,000 gallons of water per minute, with fireboat connections of 16,000 gallons additional, if desirable. A working pressure will be maintained on the system at all times, so as to be ready for instant service, and increased as the occasion demands.

The station as planned is a substantial, fire-proof, reinforced concrete building covering an area of 10,000 square feet, comprising boiler and engine room adjoining, with quarters for station force on second story. The only wood in the structure is the surface flooring and inside doors of the quarters.

Elevated monitor nozzles are placed one at each front corner of the roof, over quarters and at either end over boiler room, perforated 4-inch dry pipes connected to the city water mains are laid on the roof along the front and rear walls.

The area covered by mains of the system is bounded by Pratt, Eutaw, Franklin, Howard, Saratoga, Gay and South streets, and covers about 170 acres.

All pipes of the system are lap-welded, soft, open-hearth steel. The pipe lines, including valves, hydrants and other fittings, were tested and made tight before backfilling, at a pressure of 600 pounds per square inch. The system of pipes is sufficiently elastic to remain tight under all conditions of service. Provision is made to avoid the effect of electrolysis. The pipe joint used is specially designed for the purpose. Gate valves of semi and open-hearth steel, bronze mounted, of a substantial double-disc type, painted inside and outside with asphalt paint, are subjected to a test pressure of 700 pounds pressure per square inch.

The hydrants installed are a specially designed flush type. The number of hydrants in the system is 226. Hydrants are located at street intersections between corner of building lines and curb corners, alley intersections and alternating on opposite side of the streets.

Hydrant heads are provided with five openings for 2½-inch hose and 3-inch hose, having a regulating device for controlling the pressure of separate streams from the same heads, and so arranged that it is possible to use siamese connections for the purpose of securing additional lines of hose from the same hydrant, if desirable.

Automobile hose wagons are operated in conjunction with the system, carrying not less than 2,000 feet of 3-inch hose, monitor pipes, deluge sets and all modern appliances for the heaviest fire service.

A complete and distinct fire alarm system has been installed between the street boxes and the pumping station direct, for the purpose of issuing such orders as may be necessary.

The cost of the system in its entirety is estimated at $964,731.69.

Itemized statements are set forth herein covering expenditures and work performed by the Department during the past year.

The officers and members of the Department, generally, have our appreciation for their efficient and faithful service rendered at all times.

Respectfully submitted,

RICHARD H. JOHNS, *President,*
ISRAEL ROSENFELD,
SIDNEY T. MANNING,
Commissioners.

ESTIMATE FOR 1912.

Salaries		$755,385 00
Apparatus	$12,000 00	
Apparatus repairs	5,000 00	
Accidents	6,000 00	
Feed	38,000 00	
Fuel	16,000 00	
Furniture	2,500 00	
Harness	1,000 00	
Horseshoeing	8,600 00	
Hose	5,000 00	
Horses	6,500 00	
Electricity and gas	3,600 00	
Insurance	4,220 00	
Washing	6,750 00	
Sick	6,500 00	
Pensioners (regular)	21,000 00	
Fire Alarm Telegraph Department	8,000 00	
Cable for subways	10,000 00	
Fire alarm boxes	1,200 00	
Office expenses	1,500 00	
Miscellaneous	12,000 00	
Storeroom	10,000 00	
		185,370 00
		$940,755 00

NEW IMPROVEMENTS, 1912.

For completion of High Pressure Service	$136,000 00	
Repair shop	8,150 00	
Pensions—Firemen's widows	4,175 00	
Pension—Lottie C. Curry	300 00	
Pension—Mary A. McGraw	400 00	
		149,025 00
Total appropriations		$1,089,780 00

APPROPRIATIONS, 1911.

Amount appropriated by the Mayor and City Council out of the general levy, 1911:

Fire Department:		
Salaries	$723,360 00	
Expenses	185,305 84	
High Pressure Service Hose Companies Nos. 1 and 2:		
Salaries	10,975 00	
Equipment	20,000 00	
Engine Company No. 40:		
Salaries	10,075 00	
Equipment	8,300 00	
Pensions—Firemen's widows	5,325 00	
Engine Company No. 39:		
Completion of fireboat	15,500 00	
Completion of installation of High Pressure Service	150,000 00	
		$1,128,840 84
Balances carried forward from 1910:		
Engine Company No. 38	$10,390 00	
Engine Company No. 39	20,391 65	
Engine House Light and Montgomery streets,	30,000 00	
Engine House Fulton avenue and Baker street	29,710 00	
High Pressure Service	76,751 05	
		167,242 70
Total appropriations		$1,296,083 54

EXPENDITURES, 1911.

Amount drawn from the City Comptroller as follows:

Fire Department:		
Salaries	$720,305 36	
Expenses	185,305 84	
Engine Company No. 38:		
Equipment	10,390 00	
Engine Company No. 39:		
Equipment	35,891 65	
Engine Company No. 40:		
Salaries	8,554 83	
Equipment	974 25	
High Pressure Service Hose Companies Nos. 1 and 2:		
Equipment	14,937 48	
Completion of installation of High Pressure Service	193,011 06	
Pensions—Firemen's widows	5,325 00	
Property—Engine House, Fulton avenue and Baker street	6,907 50	
Property—Engine House, Light and Montgomery streets	7,706 65	
		1,189,309 62
Surplus of credit		$106,773 92
Balance to surplus, 1911	$15,549 81	
Balance carried forward to 1912:		
Engine Company No. 40	7,325 75	
High Pressure Service Hose Companies Nos. 1 and 2	5,062 52	
High Pressure Service	33,739 99	
Engine House, Light and Montgomery streets,	22,293 35	
Engine House, Fulton avenue and Baker streets	22,802 50	
		106,773 92

FIRE DEPARTMENT.

Appropriations, 1911	$1,128,840 84	
Balance carried forward from 1910	167,242 70	
		$1,296,083 54

EXPENDITURES.

Salaries	$720,305 36	
Apparatus	11,039 18	
Apparatus repairs	13,987 41	
Accident	5,797 70	
Feed	37,293 42	
Fuel	17,842 19	
Furniture	2,232 81	
Harness	933 25	
Horseshoeing	8,439 00	
Hose	4,397 33	
Horses	5,747 50	
Electricity and gas	3,665 63	
Insurance	3,636 00	
Washing	6,673 50	
Sick	7,270 70	
Pensioners (regular)	17,680 91	
Fire Alarm Telegraph Department	6,897 88	
Cable for subways	1,979 75	
Fire alarm boxes	660 00	
Office expenses	1,636 66	
Miscellaneous	16,688 77	
Storeroom	10,806 25	
Engine Company No. 38	10,390 00	
Engine Company No. 39	35,891 65	
Engine Company No. 40	9,529 08	
High Pressure Service Hose Companies Nos. 1 and 2	14,937 48	
High Pressure Service	193,011 06	
Pensions—Firemen's widows	5,325 00	
Engine House, Fulton avenue and Baker street,	6,907 50	
Engine House, Light and Montgomery streets	7,706 65	
		1,189,309 62
Surplus of credit		$106,773 92
Balance to surplus	$15,549 81	
Balance carried forward to 1911	91,224 11	
		106,773 92

GENERAL STATEMENT.

Amount drawn from City Comptroller, account of general appropriations	$1,189,309 62	
Amount carried forward to 1912	91,224 11	
Amount received from sale of old material	2,997 83	
		$1,283,531 56
Departmental expenditures	$1,189,309 62	
Amount carried forward to 1912	91,224 11	
Amount paid City Comptroller	2,997 83	
		1,283,531 56

HIGH PRESSURE SERVICE.

Fire Engine House 1957 Loan and Tax Levy: For installation of a pipe line system and pumping station, including the purchase of ground and erection of buildings thereon for hose companies to be used in conjunction therewith:

1908 Appropriation	$465,000 00	
1910 Appropriation	205,000 00	
1911 Appropriation	150,000 00	
		$820,000 00
1908 Expenditures	$11,650 60	
1909 Expenditures	208,463 34	
1910 Expenditures	373,135 01	
1911 Expenditures	193,011 06	
		786,260 01
Surplus of credit		$33,739 99
Balance carried forward to 1912		33,739 99

DISBURSEMENTS.

Appropriations		$820,000 00
Pipe line construction	$507,115 99	
Pumping Station	152,261 79	
Pumps	32,985 00	
Boilers	20,615 00	
Engineering	38,520 82	
Hose company station	34,761 41	
		786,260 01
Surplus of credit		$33,739 99
Balance carried forward to 1912		33,739 99

FIRE DEPARTMENT.

Appropriation $1,296,083 54

EXPENDITURES.

Account.	Salaries.	Expenses.
President Edward M. Farrish..	$1,129 17	
President Richard H. Johns...	370 82	
Commissioner Gilles J. Shaw..	752 66	
Commissioner A. Roszel Cathcart	430 58	$13 50
Commissioner Israel Rosenfeld.	247 18	
Commissioner Sidney T. Manning	563 80	
Secretary and Clerk Pinkney W. Wilkinson	1,643 75	.....
Acting Assistant Clerk Maurice W. Uhler	900 00	.....
Chief Eng. George W. Horton.	2,750 00	
Deputy Chief Eng. August Emrich	2,000 00	
Dist. Eng. James T. Dunn.....	1,500 00	
Dist. Eng. James A. Campbell..	1,500 00	
Dist. Eng. Frederick Branan...	1,500 00	
Dist. Eng. E. Louis Shipley....	1,500 00	
Dist. Eng. Levin H. Burkhardt.	1,500 00	5,320 43
Dist. Eng. John Kahl.....	1,500 00	
Dist. Eng. Fielding H. Lucas..	1,500 00	
Dist. Eng. Michael A. Lind....	1,500 00	
Superintendent of Machinery Thomas H. Meushaw.....	1,500 00	
Assistant Superintendent of Machinery John N. Bletzer....	1,200 00	
Superintendent of Fire Alarm Telegraph James B. Yeakle..	2,000 00	.....
No. 1 Engine Company.....	11,720 28	1,965 51
" 2 " "	12,262 89	1,747 16
" 3 " "	12,316 78	1,642 90
" 4 " "	12,320 71	2,117 85
" 5 " "	11,702 88	2,216 55
Amounts carried forward..	$87,811 50	$15,023 90

Account.	Salaries.	Expenses.
Amounts brought forward	$87,811 50	$15,023 90
No. 6 Engine Company	12,297 67	1,775 49
" 7 " "	12,318 75	2,997 73
" 8 " "	11,708 87	1,261 51
" 9 " "	12,322 77	3,208 24
" 10 " "	11,707 41	2,400 49
" 11 " "	12,317 38	4,645 66
" 12 " "	11,670 43	1,775 68
" 13 " "	12,289 64	3,307 27
" 14 " "	11,711 69	1,573 66
" 15 " "	22,927 36	7,526 01
" 16 " "	12,233 31	3,328 52
" 17 " "	11,718 67	1,419 66
" 18 " "	11,961 86	1,770 92
" 19 " "	12,320 99	1,795 71
" 20 " "	12,289 56	2,032 92
" 21 " "	11,716 80	1,577 93
" 22 " "	11,675 08	2,038 37
" 23 " "	13,366 35	1,656 54
" 24 " "	11,721 32	1,750 44
" 25 " "	11,722 16	2,413 01
" 26 " "	11,706 26	1,961 06
" 27 " "	12,286 44	1,951 28
" 28 " "	11,716 05	1,780 27
" 29 " "	11,510 97	1,582 29
" 30 " "	11,704 91	1,612 71
" 31 " "	11,722 62	1,427 21
" 32 " "	11,718 15	2,106 94
" 33 " "	11,716 13	1,414 45
" 34 " "	11,681 15	1,427 65
" 35 " "	11,549 85	329 48
" 36 " "	11,489 44	3,810 65
" 37 " "	11,708 57	2,335 25
" 38 " "	11,715 58	13,559 32
" 39 " "	18,849 09	6,607 47
" 40 " "	8,554 83	1,357 09
No. 1 Truck Company	12,066 69	1,662 59
" 2 " "	12,055 44	3,139 02
" 3 " "	11,467 46	1,021 74
" 4 " "	11,462 69	2,314 91
" 5 " "	11,473 56	1,627 60
Amounts carried forward	$577,965 45	$118,218 64

Account.	Salaries.	Expenses.	
Amounts brought forward	$577,965 45	$118,218 64	
No. 6 Truck Company	12,055 85	2,371 90	
" 7 " "	7,406 85	901 81	
" 8 " "	7,415 89	699 54	
" 9 " "	7,423 68	1,038 50	
" 10 " "	12,407 79	3,007 93	
" 11 " "	12,067 09	1,776 17	
" 12 " "	7,419 41	1,014 12	
" 13 " "	11,460 00	1,472 52	
" 14 " "	7,425 00	1,298 78	
" 15 " "	11,466 64	1,503 73	
" 16 " "	11,462 35	1,325 31	
" 17 " "	11,467 20	1,076 54	
No. 1 Water Tower	3,814 06	529 94	
" 2 " "	3,824 81	2,368 30	
Pumping Station	7,711 20	37 00	
Fire Alarm Telegraph Dept.	16,102 92	20,002 69	
No. 1 H. P. S. Hose Company		7,468 74	
No. 2 H. P. S. Hose Company		7,468 74	
Fireboat		35,891 65	
Pensioners, regular		17,680 91	
Pensioners, widows		5,325 00	
Reserve		317 75	
Miscellaneous		4,043 55	
Storeroom		11,432 35	
Office expenses		1,637 75	
Pipe line system		193,011 06	
Engine house, Fulton avenue and Baker street		6,907 50	
Engine house, Light and Montgomery streets		7,706 65	
Storehouse		279 36	
Ambulance		2,625 00	
	$728,860 19	$460,449 43	
		728,860 19	
			$1,189,309 62
Surplus of credit			$106,773 92
Balance to surplus		$15,549 81	
Balances carried forward to 1912		91,224 11	
			106,773 92

FINANCIAL STATEMENT OF THE BALTIMORE CITY FIRE DEPARTMENT FOR TWELVE MONTHS ENDING DECEMBER 31, 1911.

DR.		CR.	
January, drawn from City Comptroller....	$108,814 72	January, expenditures.....	$108,814 72
February, " " " "	109,231 52	February, "	109,231 52
March, " " " "	97,747 89	March, "	97,747 89
April, " " " "	104,617 08	April, "	104,617 08
May, " " " "	108,660 49	May, "	108,660 49
June, " " " "	100,106 24	June, "	100,106 24
July, " " " "	95,700 20	July, "	95,700 20
August, " " " "	100,373 42	August, "	100,373 42
September, " " " "	85,812 51	September, "	85,812 51
October, " " " "	89,739 94	October, "	89,739 94
November, " " " "	87,988 04	November, "	87,988 04
December, " " " "	100,517 57	December, "	100,517 57
	$1,189,309 62		$1,189,309 62

RECAPITULATION.

Account.	Appropriation.	Expenditures.	
Fire Department.	$1,296,083.54	$1,189,309.62	$106,773.92

Balance to surplus, 1911	$15,549 81	
Balance carried forward to 1912	91,224 11	
		$106,773 92

REVENUE.

Salary account	$59 41	
Hose	315 03	
Manure	150 00	
Horses	932 50	
Metals	582 48	
Pole lines	174 04	
Damage to fire alarm boxes	65 00	
Installation of fire alarm boxes	256 38	
Fire alarm service	213 11	
Insurance	180 73	
Furniture	19 85	
Harness	4 50	
Miscellaneous	44 80	
		$2,997 83

REPORT

OF THE

CHIEF ENGINEER

1911

REPORT

OFFICE OF THE CHIEF ENGINEER.

BALTIMORE, January 1, 1912.

To the Honorable the Board of Fire Commissioners:

GENTLEMEN—I have the honor to submit herewith the annual report of the Chief Engineer, it being the fifty-third annual report of the paid Fire Department.

FIRES.

During the year 1911 the Department responded to 1,663 alarms of fire.

As compared with 1910, there was an increase of sixty alarms.

The fires for the year are classified as follows:

In brick, stone or iron buildings, 1,340; in wooden buildings, 137; in other than buildings, 129; false alarms, 57; making a total of 1,663.

The loss for the year 1911 was $550,000.

APPARATUS.

The apparatus, both in service and in reserve, are in the best possible condition. The following apparatus was placed in service during the year:

Engine Company No. 39, Fireboat "Deluge;" the provision which was provided for in the year 1910, but was not placed in active service until March 13, 1911, at Pier No. 7, foot of President street.

Engine Company No. 40, temporarily placed in service at quarters of No. 20 Engine Company, North avenue and Tenth street, pending purchase of an automobile engine to be installed at quarters of No. 12 Truck Company, Forest Park.

HORSES.

There are at present in service with companies and in reserve 296 horses. During the year 20 were purchased, 13 were condemned for various causes, and 7 died. There were 160 cases of sickness and injuries treated at Department Hospital.

FIRE HYDRANTS.

The number of fire hydrants in service is 3,449. The installation of additional fire hydrants should be materially increased in sections not covered by the High Pressure Service.

DEATHS.

It is my sad duty to report deaths in the past year of the following members of the uniformed force:

MATTHEW MULILGAN,

ENGINEMAN,

NO. 6 ENGINE COMPANY.

Age 72 Years.

Appointed October 8, 1870.

Died July 5, 1911.

PENSIONER MICHAEL LYCETT.

Age 65 Years.

Appointed December 15, 1872.

Retired May 5, 1901.

Died January 18, 1911.

PENSIONER GREENBURY B. CHAPMAN.

Age 77 Years.

Appointed March 1, 1871.

Retired March 3, 1900.

Died February 27, 1911.

PENSIONER THOMAS S. BROWN.

Age 52 Years.

Appointed August 1, 1886.

Retired May 14, 1908.

Died March 29, 1911.

RECOMMENDATIONS.

Engine companies installed in the vicinity of:

Fulton avenue and Baker street, and Light and Montgomery streets, the property for which has been purchased.

Brunswick street and Wilkens avenue, Milton avenue and Federal street, and Charles and Thirtieth streets.

The purchase of automobiles for district engineers and Assistant Superintendent of Machinery.

Annexed to this report are statistical statements showing operations of the Department generally for the past year.

In conclusion, I desire to thank the Board of Fire Commissioners for their hearty co-operation in maintaining the efficiency of the Department, and tender members of the Department my sincere appreciation for the intelligent and efficient manner in which they have discharged their duties; as well as the Police Department and Fire Insurance Salvage Corps for the assistance rendered the Fire Department in the performance of duty.

Respectfully submitted,

GEORGE W. HORTON,
Chief Engineer.

TABLES

DESCRIPTION OF ENGINES.

Engines.	Built by.	When Built.	Rebuilt by.	When Rebuilt.	Size.	Cylinders Diam.	Cylinders Strokes.	Pumps Diam.	Pumps Strokes.	Boilers Diam.	Boilers Height.	Gallons per Minute.	Weight as Drawn to Fires.	Style of Engine.
No. 1	La France Co.	1908	.....	....	1st	8¾	9	5¼	9	36	68	1,000	10,400	Vertical, crane-neck, piston double.
" 2	Ahrens Co.	1909	.....	....	1st	9	8	5½	8	38	68	1,000	10,400	" " " "
" 3	La France Co.	1906	.....	....	1st	8¾	9	5¼	9	38	68	1,000	10,400	" " " "
" 4	Ahrens Co.	1908	.....	....	1st	9	8	5½	8	38	68	1,000	10,400	" " " "
" 5	La France Co.	1890	Com. Lad. Co.	1910	2d	8¼	8	4¾	8	34	62	700	8,500	" " " "
" 6	La France Co.	1901	.....	....	1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
" 7	La France Co.	1903	.....	....	1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
" 8	La France Co.	1888	La France Co.	1904	3d	8⅛	6	4⅞	6	32	60	600	7,100	" " " "
" 9	La France Co.	1903	.....	....	1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
" 10	La France Co.	1901	.....	....	1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
" 11	La France Co.	1889	La France Co.	1911	2d	8¾	8	4¾	8	34	62	700	8,400	" " " "
" 12	La France Co.	1905	.....	....	1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
" 13	La France Co.	1894	.....	....	2d	7¾	9	4½	9	33	62	700	8,660	" " " "
" 14	La France Co.	1899	.....	....	1st	8½	9	5¼	9	36	66	1,000	10,400	" " " "
" 15	La France Co.	1904	.....	....	1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
* " 16	Hull—Brusstar Bros. Pump—Thos. Manning Engine—E. J. Codd Co.	1891	J. E. Woodall Co.	1897	.....	16	10	9	10	....	....	4,400	.....	Double vertical pumps.
* " 17	La France Co.	1895	.....	....	2d	7¾	9	4½	9	33	62	700	8,700	Vertical, crane-neck, piston double

" 18	La France Co.	1908			1st	8¾	9	5¼	9	36	68	1,000	10,400	Vertical, crane-neck, piston double.
" 19	Amoskeag Co.	1908			1st	8¾	8	5	8	36	66	900	10,400	" " " "
" 20	La France Co.	1897			3d	7½	8	4¼	8	30	60	650	8,950	" " " "
" 21	La France Co.	1905			2d	8	9	4¾	9	34	64	750	8,900	" " " "
" 22	La France Co.	1891			3d	7⅜	8	4⅛	8	30	60	600	7,120	" " " "
" 23	Ahrens Co.	1909			1st	9	8	5½	8	38	68	1,000	10,400	" " " "
" 24	La France Co.	1886	La France Co.	1898	3d	7¾	8	4⅜	8	30	64	650	7,500	" " " "
" 25	La France Co.	1898			2d	8	9	4⅝	9	33	62	700	8,000	" " " "
" 26	La France Co.	1905			1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
" 27	La France Co.	1908			1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
" 28	La France Co.	1906			1st	8¾	9	5¼	9	38	68	1,000	10,400	" " " "
" 29	Silsby Mfg. Co.	1887			3d	Rotary				34	60	600	6,700	Rotary, crane-neck.
" 30	Clapp & Jones	1888	La France Co.	1904	3d	7	7	4⅜	7	32	60	600	6,990	Vertical, crane-neck, piston double.
" 31	La France Co.	1893			3d	7⅜	8	4⅛	8	30	60	600	7,000	" " " "
" 32	La France Co.	1910			1st	8¾	9	5¼	9	38	68	1,000	10,400	" " " "
" 33	La France Co.	1905			1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
" 34	La France Co.	1910			1st	8¾	9	5¼	9	38	68	1,000	10,400	" " " "
" 35	La France Co.	1908			1st	8¾	9	5¼	9	36	68	1,000	10,400	" " " "
" 36	La France Co.	1895			3d	7⅜	8	4⅛	8	30	60	600	7,100	" " " "
" 37	La France Co.	1910			1st	8¾	9	5¼	9	38	68	1,000	10,400	" " " "
" 38	Ahrens Co.	1909			1st	9	8	5½	8	38	68	1,000	10,400	" " " "
**A	La France Co.	1898			1st	8½	9	5¼	9	36	66	900	10,400	" " " "
**B	La France Co.	1893			2d	8¼	8	4¾	8	33	62	600	8,200	" " " "
**C	Clapp & Jones	1885	La France Co.	1897	2d	7½	7	4¾	7	32	62	600	7,180	" " " "
**D	La France Co.	1889	La France Co.	1904	1st	8¼	8	5¼	8	36	60	900	9,600	" " " "
**E	Ives Bros.	1874	La France Co.	1904	1st	8½	10	5	10	38	64	900	10,760	" " " "
**G	Clapp & Jones	1885			3d	6¼	7	3¾	7	32	60	500	6,700	Horizontal, straight frame, piston double.
**H	Ives Bros.	1875	La France Co.	1883	1st	8½	9	5¼	9	36	62	900	10,400	Horizontal, straight frame, piston double.

*Fire Boat. ** Reserve.

HOOK AND LADDER TRUCKS IN SERVICE.

Companies.	Description.
No. 1 Hook and Ladder Company.	1 first-size Hayes aerial truck.
" 2 " "	1 " " " "
" 3 " "	1 second-size Hayes aerial truck.
" 4 " "	1 first-size Hayes aerial truck.
" 5 " "	1 " " " "
" 6 " "	1 " " " "
" 7 " "	1 combination Holloway truck.
" 8 " "	1 " " "
" 9 " "	1 " " "
" 10 " "	1 second-size Hayes aerial truck.
" 11 " "	1 first-size Hayes aerial truck.
" 12 " "	1 combination Holloway truck.
" 13 " "	1 first-size Hayes aerial truck.
" 14 " "	1 combination Holloway truck.
" 15 " "	1 second-size Hayes aerial truck.
" 16 " "	1 first-size Hayes aerial truck.
" 17 " "	1 second-size Hayes aerial truck.

HOOK AND LADDER TRUCKS IN RESERVE.

1 first-size Hayes aerial truck.
2 second-size Hayes aerial trucks.
1 third-size Hayes aerial truck.
1 combination truck.

FIREBOATS IN SERVICE.

DELUGE—Length, 120 feet; beam, 28 feet; draft, 10 feet; capacity, 12,000 gallons per minute.

CATARACT—Length, 86 feet; beam, 20 feet; draft, 10 feet; capacity, 5,000 gallons per minute.

HOLLOWAY TYPE COMBINATION HOSE WAGONS IN SERVICE.

		2-way.	3-way.
Engine Company No.	1	1	..
" " "	2	1	..
" " "	3	1	..
" " "	4	1	..
" " "	5	1	..
" " "	6	1	..
" " "	7	1	..
" " "	8	1	..
" " "	9	1	..
" " "	10	1	..
" " "	11	1	..
" " "	12	1	..
" " "	13	1	..
" " "	14	1	..
" " "	15	1	..
" " "	15–2	1	..
" " "	17	1	..
" " "	18	1	1
" " "	19	1	..
" " "	20	1	1
" " "	21	1	1
" " "	22	1	..
" " "	23	1	..
" " "	24	1	..
" " "	25	1	1
" " "	26	1	..
" " "	27	1	..
" " "	28	1	..
" " "	29	1	1
" " "	30	1	1
" " "	31	1	1
" " "	32	1	..
" " "	33	1	..
" " "	34	1	..
" " "	35	1	..
" " "	36	1	1
" " "	37	1	..
" " "	38	1	..
" " "	40	1	1

Holloway type combination hose wagons in reserve, 16.
Hose carriages in reserve, 13.

WATER TOWERS IN SERVICE.

Two 65-foot Hale water towers.

OFFICERS' WAGONS.

12 Concord wagons in service.
4 Concord wagons in reserve.
2 White steamer cars.
1 White gasoline car.
2 Mack High Pressure Service hose wagons.
1 Firemen's ambulance.
1 Supply truck.

FIRE ALARM TELEGRAPH DEPARTMENT.

3 Construction wagons.
2 Construction trucks.
1 Superintendent's carriage.

MISCELLANEOUS.

1 Supply truck.
1 Horse ambulance.
2 Commissioners' carriages.

CHEMICAL ENGINES IN RESERVE.

1 double 85-gallon Holloway chemical engine.

HOSE IN SERVICE.

Companies.	Fabric Hose in Service.	Fabric Hose Received.	Fabric Hose Condemned.	Chemical Hose in Service.	Chemical Hose Received.	Chemical Hose Condemned.
No. 1 Engine Company.....	3,050	800	550	450	50	50
" 2 " "	3,000	350	350	500	.....	.....
" 3 " "	3,300	.....	50	500	150	150
" 4 " "	3,450	200	50	500	.....	.....
" 5 " "	2,200	.....	250	250	100	100
" 6 " "	3,300	.....	50	500	100	100
" 7 " "	3,000	600	550	500	.....	.....
" 8 " "	2,900	.....	.....	250	.....	.....
" 9 " "	3,000	500	700	250	50	50
" 10 " "	3,150	400	50	250	50	50
" 11 " "	3,000	750	950	500	.....	.....
" 12 " "	3,100	.....	100	250	50	50
" 13 " "	2,900	.....	150	500	.....	.....
" 14 " "	3,000	500	400	500	.....	.....
" 15 " "	4,900	1,000	1,300	600	50	50
" 16 " "	1,500	.....	.....	.....	.....	.....
" 17 " "	3,000	.....	.....	250	.....	.....
" 18 " "	3,050	700	500	450	.....	.....
" 19 " "	3,000	700	700	500	.....	.....
" 20 " "	3,200	200	250	450	.....	.....
" 21 " "	3,650	.....	450	300	.....	.....
" 22 " "	2,950	800	700	250	50	50
" 23 " "	3,000	200	200	500	50	50
" 24 " "	2,000	.....	.....	250	50	50
" 25 " "	3,800	.....	.....	250	50	50
" 26 " "	2,600	.....	50	250	.....	.....
" 27 " "	2,900	.....	50	450	.....	.....
" 28 " "	3,000	.....	.....	500	.....	.....
" 29 " "	2,950	.....	.....	250	.....	.....
" 30 " "	2,800	.....	100	250	50	50
" 31 " "	2,850	.....	150	225	.....	.....
" 32 " "	3,200	400	150	450	.....	.....
" 33 " "	2,400	.....	450	250	50	50
" 34 " "	2,000	.....	.....	250	.....	.....
" 35 " "	.....	.....	.....	.....	.....	.....
" 36 " "	3,000	.....	.....	250	.....	.....
" 37 " "	1,700	.....	300	250	.....	.....
" 38 " "	3,000	.....	.....	250	.....	.....
" 39 " "	2,600	2,600	.....	.....	.....	.....
" 40 " "	1,500	1,500	.....	250	.....	.....
No. 7 Hook and Ladder Co...	900	.....	300	250	50	50
" 8 " " ...	1,500	.....	.....	250	.....	.....
" 9 " " ...	.....	.....	.....	250	.....	.....
" 12 " " ...	1,500	.....	.....	250	.....	.....
" 14 " " ...	1,500	.....	100	250	.....	.....
" 1 Water Tower.....	103	.....	.....	.....	.....	.....
" 2 " "	100	.....	.....	.....	.....	.....

MANUAL FORCE OF THE DEPARTMENT.

Officers.

Chief Engineer	1
Deputy Chief Engineer	1
District Engineers	8
Superintendent of Machinery	1
Assistant Superintendent of Machinery	1

Engine Companies.

No. 1 Engine Company	12
" 2 " "	12
" 3 " "	12
" 4 " "	12
" 5 " "	12
" 6 " "	12
" 7 " "	12
" 8 " "	12
" 9 " "	12
" 10 " "	12
" 11 " "	12
" 12 " "	12
" 13 " "	12
" 14 " "	12
" 15 " "	22
" 16 " "	12
" 17 " "	12
" 18 " "	12
" 19 " "	12
" 20 " "	12
" 21 " "	12
" 22 " "	12
" 23 " "	13
" 24 " "	12
" 25 " "	12
" 26 " "	12
" 27 " "	12
" 28 " "	12
" 29 " "	12
" 30 " "	12
" 31 " "	12
" 32 " "	12

No. 33 Engine Company	12
" 34 " "	12
" 35 " "	12
" 36 " "	12
" 37 " "	12
" 38 " "	12
" 39 " "	20
" 40 " "	12

HOOK AND LADDER COMPANIES.

No. 1 Truck Company	12
" 2 " "	12
" 3 " "	12
" 4 " "	12
" 5 " "	12
" 6 " "	12
" 7 " "	8
" 8 " "	8
" 9 " "	8
" 10 " "	13
" 11 " "	12
" 12 " "	8
" 13 " "	12
" 14 " "	8
" 15 " "	12
" 16 " "	12
" 17 " "	12
Pumping Station	8
No. 1 Water Tower	4
" 2 " "	4
	712
Probationary firemen	20
Total active membership of the Department	732
Disabled members pensioned	42
Total membership	774

SALARIES OF OFFICERS AND MEMBERS.

		PER ANNUM.
1	Chief Engineer	$2,750.00
1	Deputy Chief Engineer	2,000.00
8	District Engineers, each	1,500.00
1	Superintendent of Machinery	1,500.00
1	Assistant Superintendent of Machinery	1,200.00
51	Captains of engine and truck companies, each	1,200.00
61	Lieutenants of engine and truck companies, each	1,075.00
40	Enginemen, each	1,150.00
47	Assistant enginemen, each	1,000.00
4	Pilots on fire boats, each	1,000.00
12	Tillermen of truck companies, each	950.00
12	Assistant tillermen of truck companies, each	950.00
55	Hostlers of engine and truck companies, each	950.00
50	Assistant hostlers of engine and truck companies, each	950.00
255	Pipemen, each	900.00
102	Laddermen, each	900.00
11	Stokers on fire boat and pumping station, each	900.00
20	Probationary firemen, each	600.00

732 Officers and men.

PENSION ROLL.

NAME.	POSITION AT TIME OF RETIREMENT.	AMOUNT OF ANNUAL PENSION.
William H. Dunn	District Engineer	$400.00
George W. Foxwell	Captain	600.00
John Hoffman	Captain	600.00
Samuel R. Watkins	Captain	600.00
George C. Young	Captain	600.00
Louis A. Tuckerman	Lieutenant	537.50
William H. Taylor	Lieutenant	475.00
Thomas Humphreys	Engineman	400.00
Frederick L. Nelson	Engineman	550.00
John W. Walsh	Engineman	575.00
John H. Deal	Engineman	575.00
Charles Freeburger	Engineman	575.00
Thomas S. Atkinson	Engineman	575.00
Robert Kain	Batteryman	500.00
John J. Purcell	Tillerman	450.00
William Wiley	Hostler	475.00
John Wernsing	Hostler	450.00
Joseph Lavender	Hostler	450.00
Joseph W. Moon	Hostler	450.00
Mark Hill	Hostler	450.00
Christian Freyer	Hostler	450.00
John W. Potts	Hostler	450.00
John F. Peerce	Hostler	450.00
Charles Airey	Assistant Hostler	450.00
William Gordon	Callman	400.00
John H. Gildea	Callman	400.00
C. Allen Orem	Pipeman	450.00
George H. Little	Pipeman	400.00
Solomon Uhlfelder	Pipeman	400.00
Charles A. Soistman	Pipeman	400.00
John J. Flynn	Pipeman	400.00
Charles H. Baker	Pipeman	400.00
Albert Oelman	Pipeman	400.00
John N. Downs	Pipeman	400.00
Wilbur Pearce	Pipeman	450.00
Albert H. Gier	Pipeman	450.00
John G. Keilholtz	Pipeman	450.00
Charles P. Griffin	Pipeman	450.00
John T. Elliott	Ladderman	400.00
Russell M. Brown	Ladderman	400.00
John F. Mackenzie	Ladderman	450.00
William White	Ladderman	400.00

NUMBER OF BOXES TO WHICH COMPANIES ARE ASSIGNED TO RESPOND.

Companies.	First Alarm.	Second Alarm.	Third Alarm.	Total.
No. 1 Engine Company	84	91	90	265
" 2 " "	80	130	59	269
" 3 " "	90	62	73	225
" 4 " "	121	132	108	361
" 5 " "	78	62	30	170
" 6 " "	82	99	101	292
" 7 " "	88	126	93	307
" 8 " "	38	104	77	219
" 9 " "	52	101	80	233
" 10 " "	42	63	90	195
" 11 " "	48	68	23	139
" 12 " "	55	12	10	77
" 13 " "	64	61	64	189
" 14 " "	55	35	21	111
" 15 " "	154	140	101	395
" 16 " "	31	5	.....	36
" 17 " "	21	15	8	44
" 18 " "	73	52	43	168
" 19 " "	52	46	40	138
" 20 " "	33	22	5	60
" 21 " "	17	7	3	27
" 22 " "	24	17	8	49
" 23 " "	112	104	108	324
" 24 " "	51	55	27	133
" 25 " "	58	44	65	167
" 26 " "	67	28	40	135
" 27 " "	60	120	103	283
" 28 " "	59	90	86	235
" 29 " "	16	11	7	34
" 30 " "	21	11	8	40
" 31 " "	33	30	20	83
" 32 " "	87	97	104	288
" 33 " "	65	66	62	193
" 34 " "	56	45	70	171
" 35 " "	.....	.....	.....	.....
" 36 " "	48	61	38	147
" 37 " "	35	45	14	94
" 38 " "	45	57	111	213
" 39 " "	35	.....	.....	35
" 40 " "	17	18	5	40

NUMBER OF BOXES TO WHICH COMPANIES ARE ASSIGNED TO RESPOND—*Concluded.*

Companies.	First Alarm.	Second Alarm.	Third Alarm.	Total.
No. 1 Hook and Ladder Company	110	82	43	235
" 2 " " " "	202	123	46	371
" 3 " " " "	82	70	10	162
" 4 " " " "	76	137	24	237
" 5 " " " "	49	57	42	148
" 6 " " " "	93	11	4	108
" 7 " " " "	32	18	.....	50
" 8 " " " "	28	4	2	34
" 9 " " " "	17	3	.....	20
" 10 " " " "	76	46	13	135
" 11 " " " "	57	48	19	124
" 12 " " " "	32	.....	.....	32
" 13 " " " "	52	66	18	136
" 14 " " " "	13	18	.....	31
" 15 " " " "	47	33	14	94
" 16 " " " "	48	98	31	177
" 17 " " " "	28	34	4	66
" 1 Water Tower	109	2	111	
" 2 " "	77	21	98	

SERVICE OF COMPANIES AT FIRES.

Companies.	Responded.	Transferred.	Feet of Hose Laid.	Tanks Used.	Extinguishers Used.	Ladders Used.	Feet of Ladders Used.	Working Time of Steamers.		Working Time of Tower.		Time Away From Quarters.	
								Hrs.	Min.	Hrs.	Min.	Hrs.	Min.
No. 1 Engine Company	101	....	18,800	38	....	....	....	17	30	.....	.....	54	30
" 2 " " "	78	....	18,050	37	....	....	....	29	30	.....	.....	61	15
" 3 " " "	139	....	15,400	47	....	....	....	18	20	.....	.....	74	38
" 4 " " "	102	....	26,850	55	....	....	....	22	15	.....	.....	69	45
" 5 " " "	158	10	12,050	37	....	....	....	14	30	.....	.....	78	30
" 6 " " "	119	1	23,100	62	2	4	72	18	15	.....	.....	72	35
" 7 " " "	143	3	20,300	51	....	....	....	10	15	.....	.....	86	30
" 8 " " "	84	6	12,500	42	....	....	....	6	30	.....	.....	67	.....
" 9 " " "	87	4	22,050	47	....	....	....	6	10	.....	.....	63	45
" 10 " " "	70	1	10,700	30	....	....	....	8	.....	.....	.....	59	.....
" 11 " " "	123	5	27,200	40	....	....	....	19	4	.....	.....	60	38
" 12 " " "	72	8	13,750	28	....	....	....	11	30	.....	.....	51	20
" 13 " " "	135	9	15,600	55	....	....	....	13	30	.....	.....	85	25
" 14 " " "	66	....	13,800	27	....	2	....	16	45	.....	.....	57	38
" 15 " " "	95	....	29,100	25	....	....	....	27	30	.....	.....	77	.....
" 15-2 " " 2d section	4	....	1,450	2	....	....	....	2	35	.....	.....	7	20
" 16 " " "	28	....	700	....	....	....	....	8	10	.....	.....	23	30
" 17 " " "	24	2	4,100	10	....	....	....	.....	.....	.....	.....	25	30
" 18 " " "	91	4	15,500	26	....	....	....	6	4	.....	.....	69	15
" 19 " " "	49	....	4,250	26	....	....	....	3	30	.....	.....	18	50
" 20 " " "	25	2	4,650	22	....	....	....	12	50	.....	.....	37	45
" 21 " " "	20	3	1,950	3	....	....	....	.....	.....	.....	.....	21	25

"	22	"	"	"	.....	50	4	7,200	19	....	....	....	6	45	.....	.....	32	25
"	23	"	"	"	.....	96	....	17,300	35	....	....	....	18	30	.....	.....	58	12
"	24	"	"	"	.....	69	....	13,150	29	....	....	....	6	45	.....	.....	42	45
"	25	"	"	"	.....	96	....	20,000	79	....	....	....	14	.....	.....	.....	190	.....
"	26	"	"	"	.....	69	1	15,300	28	....	....	....	15	40	.....	.....	45	.....
"	27	"	"	"	.....	76	4	21,900	17	....	1	....	19	.....	.....	.....	59	45
"	28	"	"	"	.....	98	....	18,950	48	....	....	....	7	30	.....	.....	49	45
"	29	"	"	"	.....	18	....	4,050	7	....	....	....	4	.....	.....	.....	21	38
"	30	"	"	"	.....	27	....	6,850	10	....	....	....	.....	.....	.....	.....	28	28
"	31	"	"	"	.....	40	....	15,000	18	....	....	....	9	15	.....	.....	41	9
"	32	"	"	"	.....	80	....	13,550	28	....	....	....	21	27	.....	.....	52	30
"	33	"	"	"	.....	73	1	10,450	24	....	....	....	7	.....	.....	.....	43	30
"	34	"	"	"	.....	115	....	15,450	50	....	....	....	27	7	.....	.....	68	48
"	35	"	"	"	.....	....	....	.....	....	....	....	....	.....	.....	.....	.....	.....	.....
"	36	"	"	"	.....	52	3	6,700	11	....	....	....	7	10	.....	.....	51	15
"	37	"	"	"	.....	34	....	4,700	6	....	....	....	.....	.....	.....	.....	20	22
"	38	"	"	"	.....	85	....	11,350	31	....	....	....	10	15	.....	.....	46	30
"	39	"	"	"	.....	36	....	.....	....	....	....	....	.....	.....	.....	.....	24	25
"	40	"	"	"	.....	12	....	2,050	2	....	2	44	.....	.....	.....	.....	13	40
No.	1	Water	Tower	Company	.....	....	....	.....	....	....	....	....	.....	.....	.....	.....	10	41
"	2	"	"	"	...	3	....	.....	....	....	....	....	.....	.....	.....	.....	4	40

SERVICE OF COMPANIES AT FIRES—*Concluded.*

Companies.	Responded.	Transferred.	Feet of Hose Laid.	Tanks Used.	Extinguishers Used.	Ladders Used.	Feet of Ladders Used.	Working Time. Hrs.	Min.
No. 1 Hook and Ladder Co.	89	1	.....	...	6	117	4,218	66	29
" 2 " " " "	117	3	.....	...	27	175	4,177	94	37
" 3 " " " "	139	11	.....	...	19	154	3,012	102	15
" 4 " " " "	114	1	.....	...	41	118	2,460	88	25
" 5 " " " "	61	3	.....	...	4	74	1,339	43	45
" 6 " " " "	103	...	.....	...	27	116	2,105	84	30
" 7 " " " "	61	...	6,800	21	9	53	849	48	47
" 8 " " " "	15	...	.....	3	1	20	324	22	53
" 9 " " " "	19	...	.....	...	....	13	238	16	45
" 10 " " " "	119	4	.....	...	63	134	2,438	175	30
" 11 " " " "	88	15	.....	...	17	73	1,949	127	15
" 12 " " " "	14	...	2,400	3	5	8	192	13	10
" 13 " " " "	80	...	.....	...	40	112	2,174	58	10
" 14 " " " "	8	2	.....	...	....	...	.....	8	38
" 15 " " " "	44	...	.....	...	18	38	639	24	43
" 16 " " " "	55	...	.....	...	7	55	1,077	60	14
" 17 " " " "	41	...	.....	...	2	61	1,003	23	55

SECOND, THIRD AND GENERAL ALARMS OF FIRE DURING 1911.

Box.	Location.	Date.	Alarm.	Alarm.	Alarm.
61	Pier 10 Light Street Wharf	February 3		Third	
224	505 North Gay street	March 1	Second		
873	2616 Francis street	March 10	Second		
82	23-31 Taylor street	March 23			Combination
513	132 West Pratt street	March 31	Second		
527	321 South Howard street	April 7	Second		
419	208 North Eutaw street	April 13	Second		
581	507 North Eutaw street	April 16	Second		
5221	Pier 3 Light Street Wharf	May 2		Third	
167	1611 Eastern avenue	May 3	Second		
415	N. W. cor. Fayette and Eutaw streets	July 2		Third	
131	309 East Falls avenue	August 15		Third	
415	415 West Baltimore street	September 12	Second		
52	412 South Sharp street	September 24	Second		
414	307-309 West Baltimore street	October 9		Third	
3825	559 Robert street	October 10	Second		
2126	216 North Dallas street	October 21	Second		
513	103 South Sharp street	November 16		Third	
171	2105 Eastern avenue	November 21		Third	

NUMBER OF FIRES AND LOSSES EACH YEAR SINCE THE ORGANIZATION OF THE PAID FIRE DEPARTMENT.

YEAR	NUMBER OF FIRES.	LOSSES.
1859	98	$350,000.00
1860	112	310,000.00
1861	115	60,000.00
1862	130	83,000.00
1863	138	120,482.33
1864	143	163,528.49
1865	163	71,358.90
1866	178	181,115.00
1867	193	293,045.00
1868	145	76,244.75
1869	187	398,259.09
1870	203	432,717.07
1871	226	475,391.00
1872	245	300,000.00
1873	265	892,628.58
1874	384	506,826,15
1875	348	608,351.30
1876	332	563,248.78
1877	420	438,715.57
1878	371	162,312.78
1879	306	193,654.54
1880	343	580,290.09
1881	324	454,773.35
1882	358	330,113.84
1883	399	561,520.00
1884	388	617,871.79
1885	474	441,743.00
1886	430	896,527.12
1887	496	1,162,359.26
1888	602	1,272,478.82
1889	545	477,329.07
1890	594	441,152.65
1891	676	650,009.73
1892	795	839,433.77
1893	829	1,153,129.76
1894	831	542,188.29
1895	816	730,751.11
1896	985	423,062.79

NUMBER OF FIRES AND LOSSES EACH YEAR SINCE THE ORGANIZATION OF THE PAID FIRE DEPARTMENT—*Concluded.*

YEAR.	NUMBER OF FIRES.		LOSSES.
1897	1,110		$572,497.39
1898	1,375		861,114.77
1899	1,309		438,583.38
1900	1,458		1,084,471.84
1901	1,498		1,499,119.90
1902	1,547		681,968.89
1903	1,522		670,614.61
1904	1,482	(Estimated)	70,477,625.31
1905	1,463		398,476.92
1906	1,373		612,567.75
1907	1,533	(Estimated)	823,000.00
1908	1,475	(Estimated)	1,105,000.00
1909	1,664	(Estimated)	1,300,000.00
1910	1,603	(Estimated)	722,237.00
1911	1,663	(Estimated)	550,000.00

SUMMARY OF FIRES FOR THE YEAR 1911.

Month.	1st District.	2d District.	3d District	4th District.	5th District.	6th District.	7th District.	8th District.	Boxes.	Silent.	Special.	Total.
January	7	18	6	13	4	7	5	7	67	45	11	123
February	15	9	11	10	5	10	3	8	71	45	16	132
March	18	21	16	23	14	8	7	7	114	76	16	206
April	9	21	9	15	10	8	5	12	89	48	14	151
May	21	14	13	16	6	8	2	7	87	75	12	174
June	14	13	7	13	8	7	2	7	71	39	14	124
July	11	4	9	20	5	7	4	18	78	36	7	121
August	10	9	7	14	6	5	1	4	56	38	7	101
September	4	10	7	11	5	9	6	8	60	31	12	103
October	8	5	6	16	8	3	2	7	55	36	6	97
November	18	5	7	19	11	9	8	5	82	65	11	158
December	14	13	16	19	16	5	5	10	98	53	22	173
	149	142	114	189	98	86	50	100	928	587	148	1,663

FIRES IN DIFFERENT STYLES OF BUILDINGS, ETC.

Months.	Brick or Stone.	Frame.	Other than Buildings.	False Alarms.	Total.
January	107	7	6	3	123
February	113	13	4	2	132
March	166	18	20	2	206
April	116	10	13	12	151
May	143	9	20	2	174
June	98	10	11	5	124
July	89	16	12	4	121
August	81	7	9	4	101
September	83	6	8	6	103
October	74	13	4	6	97
November	123	17	14	4	158
December	147	11	8	7	173
	1,340	137	129	57	1,663

FIRES INVESTIGATED BY MEMBERS OF DEPARTMENT AND WHICH WERE EXTINGUISHED BY POLICE AND CITIZENS.

No. 1 Engine Company	...
" 2 " "	5
" 3 " "	3
" 4 " "	3
" 5 " "	5
" 6 " "	3
" 7 " "	2
" 8 " "	9
" 9 " "	2
" 10 " "	4
" 11 " "	7
" 12 " "	6
" 13 " "	2
" 14 " "	3
" 15 " "	...
" 16 " "	...
" 17 " "	5
" 18 " "	...
" 19 " "	2
" 20 " "	...
" 21 " "	...
" 22 " "	...
" 23 " "	...
" 24 " "	...
" 25 " "	...
" 26 " "	4
" 27 " "	6
" 28 " "	4
" 29 " "	1
" 30 " "	1
" 31 " "	...
" 32 " "	...
" 33 " "	1
" 34 " "	16
" 35 " "	...
" 36 " "	2
" 37 " "	1
" 38 " "	8
" 39 " "	...
" 40 " "	4

FIRES INVESTIGATED BY MEMBERS OF DEPARTMENT AND WHICH WERE EXTINGUISHED BY POLICE AND CITIZENS—*Concluded.*

No. 1 Hook and Ladder Company	...
" 2 " " " "	3
" 3 " " " "	...
" 4 " " " "	2
" 5 " " " "	...
" 6 " " " "	7
" 7 " " " "	1
" 8 " " " "	...
" 9 " " " "	...
" 10 " " " "	3
" 11 " " " "	2
" 12 " " " "	1
" 13 " " " "	2
" 14 " " " "	1
" 15 " " " "	1
" 16 " " " "	...
" 17 " " " "	1
No. 1 Water Tower	...
" 2 " "	2
	135

TABLE SHOWING THE DIFFERENT CAUSES OF FIRES AND ALARMS DURING 1911.

Alcohol can	1
Alcohol lamp	3
Burning paper	3
Burning rubbish	24
Burning grass	3
Burning leaves	3
Bonfire	1
Balloon	7
Coal oil lamp	59
Coal oil heater	29
Coal oil stove	44
Defective flue	52
Defective controller	1
Defective wire	7
Defective furnace	1
Electric wire	17
Explosion of carburator	1
Explosion of gas meter	1
Explosion of water-back	2
Explosion of water heater	1
False alarms	57
Falling derrick	1
Fireworks	4
Fumingation	1
Falling stack	1
Gasoline stove	42
Gasoline explosion	21
Gasoline lamp	2
Gas stove	28
Gas jet	49
Gas heater	3
Gas pipe	1
Gas lamp	1
Hot coals	8
Hot ashes	11
Hot box	*
Incendiary	3
Lighted candle	17
Lighted match	27
Lighted taper	1
Lighted paper	4

TABLE SHOWING THE DIFFERENT CAUSES OF FIRES AND ALARMS DURING 1911—*Concluded.*

Lighted lantern	3
Lighted torch	3
Lighted cigar	2
Lightning	4
Lighted cigarette	1
Overheated stove	51
Overheated stovepipe	18
Overheated furnace	7
Overheated coffee roaster	3
Overheated gas iron	8
Overheated range	6
Overheated kiln	1
Overheated steam pipe	1
Overheated ventilator	1
Overheated boiler	1
Overheated oven	1
Open fire-place	2
Pan of grease	10
Playing with matches	37
Playing with fire	11
Pot of pitch	10
Pan of wax	2
Paint boiling over	1
Painters' torch	1
Rosin boiling over	1
Rekindle	3
Soot	83
Sparks	39
Spontaneous combustion	7
Slacking lime	6
Sulphur pot	1
Thawing water pipe	3
Tailors' iron	3
Tinners' pot	6
Turpentine boiling over	1
Unknown	697
Unusual smoke	73
Unusual steam	6
Unusual light	6
Unnecessary alarm	1
Upsetting medical inhaler	1
Water-back bursting	1

FIRES AT WHICH RESCUES WERE MADE.

Friday, February 10, 1911—Box 13, at 10.08 P. M.—William Moseman, William Abrahams and S. Mempho, of 812 East Pratt street, whose escape was cut off from stairway by heat and smoke in a three-story lodging house, were rescued by means of thirty-foot ladder, by the following members of No. 1 Truck Company: Lieut. Louis Bell, Assistant Tillerman John George, and Ladderman Michael Cooney.

Sunday, March 5, 1911—Box 35, at 1.13 A. M.—Mrs. Bessie Levin, age 25 years, and Dorothy Levin, age 8 weeks, at 1013 Linden avenue, whose escape was cut off by dense smoke, were rescued from a third-story window by means of thirty-five foot ladder, by the members of No. 4 Truck Company.

Sunday, March 19, 1911—Box 345, at 6.06 A. M.—Miss Sallie Bloodgood, age 70 years, of No. 19 West Twentieth street, was assisted from second-story window by Lieut. D. V. O'Sullivan and Pipeman Simon Mueller of No. 18 Engine Company, by the means of eighteen-foot ladder, their escape being cut off by smoke.

FIRES WHICH WERE ATTENDED BY LOSS OF LIFE.

Wednesday, January 4, 1911—Special, 4.15 P. M.—Kasmery Kozakowski, age 4 years, of 2114 Eastern avenue, was seriously burned about the face and body and was removed to St. Joseph's Hospital in the Eastern District patrol, where he died at 2.30 A. M., January 5, 1911.

Monday, January 30, 1911—Box 295, at 6.03 A. M.—Mrs. Dora Riordan, age 31 years, of 1017 Forrest Place, was burned over her entire body, from which she died before the arrival of Fire Department. Mr. John Riordan (husband), 37 years of age, was burned about the hips, side and stomach in trying to extinguish the flames; he was removed to his father-in-law's residence, No. 1014 Greenmount avenue, where he died at 9 A. M., the thirty-first inst. Cause, explosion of coal oil lamp.

Wednesday, February 1, 1911—Box 56, 10.30 A. M.—Joseph Pugh, colored, age 4 years, of 153 West Hamburg street, was found burned to death in his bed, upon arrival of Fire Department, he being locked in the room and all escape cut off.

Friday, March 10, 1911—Box 473, at 12.09 P. M.—James Gales, colored, age 71 years, of 313 North Parrish alley, was burned about the body and was removed to Franklin Square Hospital, where he died at 1.30 P. M., Sunday, March 12. Cause, explosion of coal oil lamp.

Wednesday, March 15, 1911—Box 324, at 9.18 P. M.—Priscilla Jones, colored, age 65 years, of 536 Walnut alley, was burned about the face and hands and was removed to University Hospital, where she died sixteenth inst., at 10.20 P. M. Cause, unknown.

Thursday, March 30, 1911—Box 546, at 4.35 A. M.—Mary L. McCoy, colored, age 54 years, of 1109 South Howard street, was found on first floor burned to death, upon arrival of Fire Department. Cause, unknown.

Monday, April 3, 1911—Silent, 12.45 P. M.—Ernest Heisuer, aged 79 years, of 437 North Patterson Park avenue, was severely burned about his right leg and hip, and died from the effects of his burns on eighth inst. Cause, upsetting coal oil heater.

Tuesday, April 4, 1911—Box 864, at 3.31 A. M.—Mr. Charles Hamilton, age 35 years, of 54 Brick Hill, Woodberry, was severely burned about the face and hands, and was sent to St. Luke's Hospital in Northern police ambulance, where he died from effects of his burns, April 14. Cause, unknown.

Friday, April 7, 1911—Box 614, at 3.17 P. M.—Leonard Miles, age 17 months, of 320 East Hamburg street, was severely burned about the body, face and hands, and was conveyed to Maryland University Hospital in the Southern District ambulance, where he died from effects of his burns. Cause, gasoline stove.

Wednesday, April, 26, 1911—Box 875, at 7.19 A. M.—Mrs. Margaret Skivington, age 70 years, of 1516 Kensett street, was severely burned about the body and limbs, where she died from the effects of her burns. Cause, gasoline stove.

Monday, May 8, 1911—Box 168, at 6.27 A. M.—Mr. August Janetzke, age 75 years, of 1905 Aliceanna street, was painfully burned on arms and face and taken to St. Joseph's Hospital in the Eastern police ambulance, where he died on May 18. Cause, gasoline stove.

Friday, May 12, 1911—Box 8622, at 10.43 P. M.—Mrs. Camella Hynes, age 64 years, of 223 Hickory avenue, was burned all over her body and face; she was removed to St. Luke's Hospital in the Northern police ambulance, where she died of her injuries on May 13. Cause, falling with a lighted coal oil lamp.

Monday, June 5, 1911—Box 2425, at 11.03 A. M.—Mr. Chauncey Weatherby, age 45 years, residence 2223 North Charles street, was seriously burned about the entire body, at his laboratory, 604 Truxton street; he was taken to St. Joseph's Hospital, where he died at 7.15 P. M., same date. Cause, burning turpentine.

Tuesday, November 14, 1911—Special, at 1.00 P. M.—Emma Clemments, colored, age 6 years, of 617 Eislen street, was burned about the hands, face and body; she was removed to Maryland University Hospital, where she died from the effects of her burns. Investigated by Pipeman Valentine Engelhardt of No. 27 Engine Company. Cause, unknown.

Wednesday, November 22, 1911—Box 535, at 11.54 A. M.—Mr. Joseph A. Duff, age 35 years, and Joseph A. Duff, Jr., age 5 years, of 1237 Columbia avenue. Mr. Joseph A. Duff was burned about the hands and arms, and Joseph A. Duff, Jr., was burned about the body and face. They were both removed to Franklin Square Hospital and the boy died at 2 P. M. same date.

Tuesday, December 5, 1911—Box 1724, at 2.37 P. M.—Bernard Kennard Ross, colored, age 15 months, of 17 South Duncan street, was burned about the body, head and face; was removed to St. Joseph's Hospital in the Eastern police ambulance, where he died at 2.37 P. M. on the seventh inst. Cause unknown.

TABLES

CASUALTIES.

Company	Position.	Name.	Date of Injury.	Box.	Time Off Duty.	Nature of Injury.
No. 1 Engine Co....	Captain	John Watson.....	Mar. 9,'11	324	4 days, 16 hrs.	Ruptured blood vessel in right arm.
" 1 " "	Pipeman.....	James F. Legg.....	July 2,'11	415	Not off duty.	Lacerated right hand.
" 1 " "	Asst. Hostler..	Frank L. Ellerman..	July 2,'11	415	Not off duty.	Lacerated right arm.
" 1 " "	Lieutenant.....	Frank Steineman....	July 4,'11	4421	Not off duty.	Lacerated right hand.
" 1 " "	Act. Pipeman.	George H. Hilgeman	Nov. 16,'11	513	5 days, 8 hrs.	Lacerated right thigh.
" 2 " "	Hostler.....	Frank Hines.....	May 27,'11	In quarters	23 days.	Sprained back.
" 2 " "	Pipeman.....	Charles W. Nelson..	Aug. 30,'11	On the Street.	12 days, 20 hrs.	Kicked by a horse.
" 3 " "	Captain	August Schlimm....	Sept. 18,'11	In quarters.	42 days.	Lacerated left leg.
" 4 " "	Lieutenant.....	Frank G. Smith.....	May 9,'11	5221	10 days, 20 hrs.	Punctured wound on right arm.
" 4 " "	Pipeman.....	Charles Winkler.....	Nov. 18,'11	513	23 days, 16 hrs.	Infected wound on left arm.
" 4 " "	Lieutenant.....	Frank G. Smith.....	Dec. 7,'11	10-16	Still off duty.	Abscess on right hand.
" 4 " "	Hostler.....	George Yurek.....	Dec. 23,'11	In quarters.	Not off duty.	Lacerated right hand.
" 4 " "	Pipeman.....	William R. Holloran.	Dec. 26,'11	In quarters.	Not off duty.	Lacerated nose.
" 5 " "	Hostler.....	Cooper Elliott.....	Jan. 9,'11	In quarters.	6 days, 20 hrs.	Punctured wound in right foot.
" 5 " "	Pipeman.....	Bernard E. Weiss...	Feb. 23,'11	149	20 days, 12 hrs.	Dislocated middle finger on left hand.
" 5 " "	Pipeman.....	Henry R. Seippel....	Mar. 12,'11	Day, holiday.	183 days, 16 hrs.	Fractured left leg.
" 5 " "	Pipeman.....	Robert C. Lambdin.	May 18,'11	In quarters.	23 days, 20 hrs.	Dislocated little finger on left hand.
" 5 " "	Pipeman.....	John L. Doerer.....	June 11,'11	Returning horse to hospital.	Not off duty.	Bruised left shoulder.
" 5 " "	Pipeman.....	Joshua H. Miller, Jr.	July 25,'11	In quarters.	Not off duty.	Right testicle injured.
" 5 " "	Pipeman.....	Cooper Elliott.....	Nov. 21,'11	In quarters.	Not off duty.	Punctured wound in left hand.
" 5 " "	Asst. Eng'man.	Henry Ulrich.....	Dec. 11,'11	In quarters.	Not off duty.	Bruised knee cap.
" 5 " "	Captain	George W. Shipley.	Dec. 18,'11	168	Not off duty.	Bruised knee cap.

"	7	"	"	....	Pipeman.....	Frank M. Schilling.	Mar.	17, '11	388	121 days, 10 hrs.	Fracture of left knee cap.
"	7	"	"	....	Pipeman.....	Charles H. Fink....	Oct.	19, '11	246	13 days, 16 hrs.	Sprained left foot.
"	7	"	"	....	Probationer....	Charles H. Engleman	Oct.	30, '11	325	5 days, 8 hrs.	Crushed right foot.
"	7	"	"	....	Pipeman.....	William H. Zander.	Dec.	30, '11	On street.	Still off.	Sprained left ankle.
"	8	"	"	....	Pipeman.....	Frederick Kahl.....	Aug.	24, '11	588	11 days, 20 hrs.	Burned on left shoulder.
"	9	"	"	....	Pipeman.....	Fred. C. Brockman..	Dec.	21, '10	264	37 days, 18 hrs.	Fractured left wrist.
"	9	"	"	....	Pipeman.....	George W. Schneider	May	24, '11	In quarters.	160 days.	Fractured left knee.
"	9	"	"	....	Substitute.....	Carl E. Bladin.....	June	28, '11	In quarters.	Not off duty.	Fractured right wrist.
"	9	"	"	....	Lieutenant.....	John P. Weinknecht.	July	5, '11	2529	Not off duty.	Cut on back of left hand.
"	9	"	"	....	Hostler.....	Frisby Lloyd.....	Sept.	4, '11	In quarters.	7 days, 23 hrs.	Wrenched back.
"	10	"	"	....	Hostler.....	George Momberger..	Mar.	3, '11	In quarters.	264 days, 14 hrs.	Inquirnal hernia.
"	10	"	"	....	Pipeman.....	Charles F. Hill.....	July	7, '11	In quarters.	17 days, 20 hrs.	Infected wound, right hand and toe on left foot.
"	10	"	"	....	Pipeman.....	Andrew J. Heird....	Aug.	24, '11	588	Regular duty.	Lacerated thumb on right hand.
"	11	"	"	....	Probationer....	Edward T. Baney...	Feb.	3, '11	156	19 days.	Bruised left heel.
"	11	"	"	....	1st Dist. Engr.	James T. Dunn.....	Dec.	8, '11	153	Not off duty.	Right cheek cut and right leg bruised.
"	12	"	"	....	Pipeman.....	Arthur L. King.....	Jan.	11, '11	In quarters.	27 days, 16 hrs.	Infected wound on middle finger.
"	12	"	"	....	Asst. Eng'man.	Gordon J. Cronin....	Jan.	28, '11	64	4 days, 18 hrs.	Eyes and hands burnt with acid.
"	12	"	"	....	Engineman....	William F. Welsh...	Feb.	1, '11	In quarters.	2 days, 20 hrs.	Lacerated finger and sprained knee.
"	12	"	"	....	Lieutenant.....	William H. Chester.	Mar.	11, '11	Day off.	7 days, 12 hrs.	Lacerated right hand.
"	12	"	"	....	Pipeman.....	Arthur L. King....	April	12, '11	Day off.	77 days.	Left leg broken.
"	12	"	"	....	Captain	William Kimball....	May	3, '11	5221	6 days.	Sprained right ankle.
"	13	"	"	....	Pipeman.....	Harry C. Grimes....	Feb.	23, '11	In quarters.	Not off duty.	Lacerated toe on right foot, horse treading upon same.
"	13	"	"	....	Asst. Hostler..	Edward B. Griffin...	Mar.	15, '11	In quarters.	27 days.	Ruptured blood vessel, right thigh, kicked by horse.
"	13	"	"	....	Asst. Eng'man.	Joseph L. Chason...	July	28, '11	458	9 days, 8 hrs.	Left ankle sprained.
"	13	"	"	....	Asst. Hostler..	Henry Ruley.....	Sept.	9, '11	In quarters.	31 days, 12 hrs.	Fractured bone, right foot, horse stamping upon same.
"	13	"	"	....	Pipeman.....	Frederick W. Scheive	Dec.	6, '11	876	Not off duty.	Ran nail in left hand.
"	13	"	"	....	Hostler.....	Edward B. Griffin...	Dec.	5, '11	In quarters.	Off duty.	Injured testicle and lower part of abdomen exercising horses.

CASUALTIES—*Continued.*

Company.	Position.	Name.	Date of Injury.	Box.	Time Off Duty.	Nature of Injury.
No. 14 Engine Co....	Hostler.....	Reuben E. Bradford.	Feb. 4, '11	In quarters.	Not off duty.	First finger on right hand bruised, struck by pole in hose wagon.
" 14 " "	Lieutenant.....	John J. Schlag.....	Mar. 30, '11	3722	Not off duty.	Head and back bruised.
" 14 " "	Pipeman.....	George W. Weber...	Aug. 3, '11	717	Not off duty.	Left ankle injured.
" 14 " "	Pipeman.....	George W. Weber...	Nov. 29, '11	Silent.	Not off duty.	Left hand bruised.
" 15 " "	Pipeman.....	John T. Gately.....	Jan. 1, '11	In quarters.	233 days, 16 hrs.	Fractured knee cap.
" 15 " "	Act. Pipeman.	John V. Blum.....	Feb. 6, '11	In quarters.	Not off duty.	Lacerated foot.
" 15 " "	Pipeman.....	Peter J. Reed.....	Mar. 24, '11	436	Not off duty.	Lacerated hand.
" 15 " "	Pipeman.....	Martin J. Lindung..	Mar. 24, '11	436	Not off duty.	Injured knee.
" 17 " "	Pipeman.....	Joseph Neubert.....	Feb. 6, '11	Returning from Breakfast.	14 days, 16 hrs.	Lacerated finger on right hand.
" 17 " "	Hostler.....	Casper Kraft.....	May 26, '11	In quarters.	10 days, 20 hrs.	Lacerated toe on left foot.
" 18 " "	Hostler.....	Courtney Crabster...	June 14, '11	In quarters.	45 days, 20 hrs.	End of left finger cut off.
" 18 " "	Pipeman.....	Julius Neubert.....	Aug. 6, '11	In quarters.	9 days, 12 hrs.	Lacerated right arm.
" 18 " "	Pipeman.....	Virgil C. Parsons..	Dec. 24, '11	378	2 days, 4 hrs.	Sprained left ankle.
" 19 " "	Substitute.....	Thomas R. Walsh..	April 2, '11	287	9 days.	Sprained ankle.
" 20 " "	Pipeman.....	Paul F. Laurence...	Feb. 28, '11	887	17 days, 16 hrs.	Eye injured by stream of water.
" 20 " "	Probationer....	John H. Eckert.....	Sept. 10, '11	283	6 days.	Opening of old wound sliding down pole.
" 20 " "	Pipeman.....	M. Fred. Winkler..	Oct. 17, '11	616	13 days, 12 hrs.	Bruised knee sliding down pole.
" 20 " "	Pipeman.....	Paul F. Laurence...	Nov. 23, '11	754	Still off duty.	Fractured spine of shoulder blade.
" 23 " "	Pipeman.....	Louis J. Kisner.....	Feb. 5, '11	In quarters.	1 day, 7 hrs.	Scratched in eye by cat.
" 23 " "	Pipeman.....	Chas. L. Sauerwein.	April 4, '11	In quarters.	6 days, 18 hrs.	Lacerated scalp caused by slipping against radiator.
" 24 " "	Lieutenant.....	Charles Rosenthal...	Dec. 18, '10	Day, holiday.	15 days, 20 hrs.	Contusion of spine.
" 24 " "	Engineman....	William T. Hubbard.	Feb. 13, '11	1821	28 days.	Wrenched back.
" 25 " "	Hostler.....	George J. Hill.....	Feb. 19, '11	4721	21 days, 12 hrs.	Ruptured blood vessel, left leg.

"	25	"	"	....	Pipeman.....	Howard R. Waite..	April	25, '11	883	4 days, 8 hrs.	Lacerated left hand.
"	25	"	"	....	Pipeman.....	Charles B. Smith....	May	25, '11	In quarters.	4 days, 2 hrs.	Lacerated left leg.
"	25	"	"	....	Pipeman.....	Thomas R. Walsh...	Dec.	6, '11	In quarters.	8 days, 6 hrs.	Testicle glands.
"	26	"	"	....	Pipeman.....	Wm. H. Creighton..	July	13, '11	In quarters.	Not off duty.	Cut on left leg above the knee.
"	27	"	"	....	Pipeman.....	John E. Medlar....	April	1, '11	4321	Not off duty.	Lacerated face.
"	27	"	"	....	Pipeman.....	Emil Myers.....	Oct.	9, '11	414	Not off duty.	Exhaustion.
"	28	"	"	....	Hostler.....	Oliver K. Drury....	Aug.	9, '11	On street.	15 days, 14 hrs.	Wrenched back exercising horses on street.
"	29	"	"	....	Pipeman.....	James A. DePuey...	Dec.	29, '10	8 A. M. test.	19 days.	Sprained wrist.
"	30	"	"	....	Engineman....	William H. Hardy...	Oct.	8, '10	In quarters.	5 months, 20 days, 22 hrs.	Sprained right knee.
"	30	"	"	....	Pipeman.....	George E. McParland	July	24, '11	1623	11 days, 16 hrs.	Punctured wound in left hand.
"	31	"	"	....	Captain	James A. Clark.....	May	13, '11	831	12 days, 20 hrs.	Right foot punctured by nail.
"	32	"	"	....	Hostler.....	Milton Montgomery.	Aug.	13, '11	In quarters.	Not off duty.	Bitten on muscle of right arm by horse.
"	33	"	"	....	Pipeman.....	George N. Walker..	Dec.	30, '10	Day, holiday.	9 days.	Sprained tendon in left ankle.
"	33	"	"	....	Hostler.....	Charles H. Jones...	April	1, '11	Meal hour.	9 days, 16 hrs.	Lacerated and splinter in right eye.
"	33	"	"	....	Pipeman.....	John Vacek.....	Aug.	21, '11	In quarters.	19 days, 18 hrs.	Sprained right ankle.
"	33	"	"	....	Pipeman.....	Harry Daly.....	Dec.	19, '11	In quarters.	Still off duty.	Cut two fingers on left hand.
"	34	"	"	....	Asst. Eng'man.	Walter L. Batty....	Feb.	3, '11	156	Not off duty.	Bruised right knee, cut left hand.
"	34	"	"	....	Pipeman.....	Peter T. O'Dea.....	Aug.	10, '11	Exercising in front of quarters.	Not off duty.	Contusion, left side, and sprained right knee.
"	35	"	"	....	Act. Asst. Host.	Frank C. Griffin....	June	7, '11	In quarters.	Not off duty.	Lacerated finger, left hand, kicked by horse.
"	35	"	"	....	Act. Asst. Host.	James Radford.....	July	13, '11	Thrown from car.	34 days, 22 hrs.	Contusion of brain.
"	36	"	"	....	Engineman....	T. S. Atkinson.....	Dec.	21, '10	1024	27 days, 14 hrs.	Fractured rib.
"	36	"	"	....	Engineman....	T. S. Atkinson.....	Jan.	29, '11	In quarters.	Not off duty.	Lacerated head.
"	36	"	"	....	Asst. Hostler..	J. W. Doughty.....	Feb.	16, '11	In quarters.	17 days, 18 hrs.	Internal injuries.
"	36	"	"	....	Pipeman.....	C. J. Breivogel.....	Feb.	22, '11	Exercising.	23 days, 12 hrs.	Sprained left ankle.
"	36	"	"	....	Captain	J. Eigenbrodt.....	Mar.	11, '11	In quarters.	Not off duty.	Left foot bruised.
"	36	"	"	....	Pipeman.....	G. W. Weber.....	April	28, '11	741	11 days, 16 hrs.	Contused back.

CASUALTIES—*Continued.*

Company.	Position.	Name.	Date of Injury.	Box.	Time Off Duty.	Nature of Injury.
No. 36 Engine Co....	Pipeman.....	W. F. Appleby.....	May 9, '11	In quarters.	36 days, 21 hrs.	Fractured arm.
" 36 " "	Pipeman.....	S. T. Browne.....	June 21, '11	Silent alarm	Not off duty.	Bruised right elbow.
" 36 " "	Lieutenant.....	R. E. O'Keefe.....	July 4, '11	713	38 days, 16 hrs.	Broken right foot.
" 36 " "	Asst. Hostler..	C. H. Strahler.....	Oct. 12, '11	In quarters.	Not off duty.	Bitten by horse.
" 36 " "	Hostler.....	L. J. Fresch.....	Dec. 6, '11	758	Not off duty.	Bruised right knee.
" 37 " "	Captain	Harry W. Rice.....	Feb. 25, '11	In front of quarters.	80 days, 16 hrs.	Crushed toes.
" 37 " "	Hostler.....	William Baxter.....	Jan. 17, '11	In quarters.	Still off duty.	Fractured skull.
" 37 " "	Asst. Hostler..	James E. Murphy...	July 31, '11	Exercising.	5 days, 12 hrs.	Sprained ankle.
" 38 " "	Substitute.....	James Baroch.....	Jan. 6, '11	.....	14 days, 15 hrs.	Contusion, right leg.
" 38 " "	Captain	John B. Bortell.....	Feb. 10, '11	4321	98 days, 12 hrs.	Concussion of the brain.
" 38 " "	Pipeman.....	Joseph Deasel.....	Feb. 10, '11	4321	Not off duty.	Lacerated thigh and sprained finger, right side.
" 38 " "	Asst. Eng'man.	Herman F. Bode....	July 2, '11	In quarters.	Not off duty.	Bitten on back by horse.
" 38 " "	Captain	John B. Bartell.....	July 2, '11	415	Not off duty.	Lacerated right hand by falling glass.
" 38 " "	Pipeman (Det).	Charles F. Hill.....	Sept. 15, '11	In quarters.	Not off duty.	Bitten on right hip by horse.
" 39 " "	Pipeman.....	James Vomastek.....	Oct. 12, '11	In quarters.	50 days.	Fractured bone, right foot.
" 40 " "	Pipeman.....	Edward T. Baney...	May 2, '11	In quarters.	Not off duty.	Bruised right shin.
" 40 " "	Pipeman.....	Harvey H. Baker....	May 26, '11	Holiday.	15 days, 20 hrs.	Lacerated left arm.
" 40 " "	Pipeman.....	Charles J. Cain....	July 6, '11	In quarters.	5 days.	Punctured left knee.
" 40 " "	Pipeman.....	James G. Close.....	Sept. 15, '11	In quarters.	Not off duty.	Right hand cut.
" 40 " "	Pipeman.....	Edward F. Duckett.	Oct. 9, '11	In quarters.	Not off duty.	Right elbow bruised.
" 40 " "	Pipeman.....	Andrew J. Stuehler..	Nov. 23, '11	754	Not off duty.	Right hand bruised.
No. 1 Truck Co....	Probationer....	Charles Fink.....	April 7, '11	128	35 days, 10 hrs.	Fractured bone, right wrist.
" 1 " "	Ladderman....	Gerlack Debus.....	May 9, '11	In quarters.	10 days, 16 hrs.	Wrenched back.
" 1 " "	Pipeman (Det.)	Jacob Guidice.....	June 15, '11	In quarters.	Not off duty.	Bitten on left arm by horse.

"	1	"	"	....	Ladderman....	Joseph A. Gallion...	July	5, '11	54	5 days, 20 hrs.	Sprained left ankle.
"	1	"	"	....	Ladderman....	Zachary T. Seabreeze	Sept.	9, '11	In quarters.	36 days, 22 hrs.	Sprained right knee.
"	1	"	"	....	Probationer....	Ferdinand Euler....	Dec.	19, '11	226	Still off duty.	Sprained tendons, left foot.
"	2	"	"	....	Captain.....	Fred'k W. Johnston.	Sept.	7, '09	Exercising.	On house duty.	Compound fracture of right ankle.
"	2	"	"	....	Hostler.....	Frederick W. Wolff.	Sept.	7, '09	Exercising.	On house duty.	Fractured left jaw bone, general contusions of body.
"	2	"	"	....	Ladderman....	Joseph E. Watts....	April	7, '11	527	Not off duty.	Cut finger, right hand.
"	2	"	"	....	Ladderman....	Fred'k W. Viehmyer	June	17, '11	In quarters.	59 days, 10 hrs.	Injured left heel.
"	2	"	"	....	Asst. Tillerman	William H. Close....	Sept.	29, '11	Going to meals.	27 days, 12 hrs.	Sprained left wrist, fell on pavement.
"	3	"	"	....	Asst. Hostler..	Charles Sommers...	June	30, '11	163	12 days, 16 hrs.	Infected wound, left leg.
"	3	"	"	....	Hostler.....	William Hastler.....	Nov.	28, '11	In quarters.	Still off duty.	Injured knee cap, left leg.
"	4	"	"	....	Ladderman....	Frederick C. Dietz..	Nov.	16, '11	Exercising.	41 days, 16 hrs.	Splinter in left hand.
"	5	"	"	....	Ladderman....	Albert T. Cooper...	April	13, '11	2322	23 days.	Sprained left ankle, sliding down pole in quarters.
"	5	"	"	....	Asst. Hostler..	William Wiley.....	May	25, '11	On meal hour.	19 days, 12 hrs.	Dislocated thumb on left hand.
"	6	"	"	....	Tillerman.....	Wesley McClean....	Jan.	6, '11	In front of quarters.	11 days, 12 hrs.	Crushed finger, right hand.
"	6	"	"	....	Ladderman....	Thomas O'Byrne....	April	7, '11	527	7 days, 8 hrs.	Lacerated wrist, right hand.
"	6	"	"	....	Ladderman....	Charles Hughes.....	July	21, '11	In front of quarters.	25 days.	Lacerated side.
"	6	"	"	....	Asst. Hostler..	William Leonard....	Oct.	24, '11	In quarters.	68 days.	Sprained knee.
"	7	"	"	....	Ladderman....	Michael J. Kram...	April	8, '11	828	6 days, 20 hrs.	Left foot punctured with a nail.
"	7	"	"	....	Hostler.....	Howard R. Waite..	Sept.	24, '11	In quarters.	9 days, 22 hrs.	Bruise on left arm.
"	8	"	"	....	Ladderman....	Frank W. Smith....	Feb.	28, '11	887	Not off duty.	Bruised left foot.
"	8	"	"	....	Ladderman....	Joesph H. Sewell...	April	12, '11	721	Not off duty.	Lacerated finger.
"	8	"	"	....	Ladderman....	James E. Crandell..	April	24, '11	727	Not off duty.	Lacerated toe.
"	8	"	"	....	Hostler.....	John A. Epp.....	Dec.	27, '11	In quarters.	Not off duty.	Sprained back and right shoulder.
"	9	"	"	....	Ladderman....	Edward A. Grimes..	Jan.	16, '11	In quarters.	56 days, 16 hrs.	Fractured right leg.
"	9	"	"	....	Hostler.....	Matthew Carroll....	Mar.	15, '11	In quarters.	Not off duty.	Contusion, lower spine.
"	9	"	"	....	Ladderman....	William H. Cuddy..	April	27, '11	85	4 days, 16 hrs.	Contusion, right leg.
"	10	"	"	....	Asst. Hostler..	August Ott.....	Jan.	4, '11	In quarters.	26 days, 10 hrs.	Kicked by horse.
"	11	"	"	....	Lieutenant....	Guy W. Clark.....	Feb.	3, '11	In quarters.	4 days.	Lacerated finger.

CASUALTIES—*Concluded.*

Company.	Position.	Name.	Date of Injury.	Box.	Time Off Duty.	Nature of Injury.
No. 11 Truck Co....	Ladderman....	George W. Reinhardt	Feb. 21, '11	In quarters.	Not off duty.	Lacerated right hand.
" 11 " "	Ladderman....	Henry Heinze.....	April 30, '11	In quarters.	Not off duty.	Bruised forehead.
" 11 " "	Asst. Tillerman	George T. Evans....	July 26, '11	In quarters.	5 days, 22 hrs.	Bruised left foot.
" 11 " "	Ladderman....	Henry Heinze.....	Oct. 2, '11	In quarters.	Not off duty.	Bruised left foot.
" 11 " "	Ladderman....	Guy W. Clark.....	Nov. 29, '11	In quarters.	Not off duty.	Kicked by horse.
" 12 " "	Ladderman....	Hugh P. Fox.....	Feb. 11, '11	In quarters.	Not off duty.	Slightly cut on head.
" 12 " "	Ladderman....	Henry Meyers.....	Mar. 3, '11	In quarters.	Not off duty.	Slightly bruised on right hand.
" 13 " "	Ladderman....	William Hartwig....	Jan. 28, '11	7	Not off duty.	Punctured toe of left foot.
" 13 " "	Tillerman.....	John L. Durham....	Mar. 29, '11	544	Not off duty.	Punctured wound of right foot.
" 13 " "	Ladderman....	William J. Hunt....	Mar. 29, '11	544	20 days, 20 hrs.	Punctured wound of left foot.
" 13 " "	Ladderman....	William Hartwig....	July 2, '11	415	7 days, 8 hrs.	Lacerated finger, left hand.
" 14 " "	Lieutenant....	R. H. Dougherty....	Feb. 18, '11	In quarters.	57 days, 17 hrs.	Fracture of left arm.
" 15 " "	Asst. Hostler..	William Lohnes	Dec. 4, '10	In quarters.	88 days, 16 hrs.	Fractured patilla, left knee.
" 15 " "	Ladderman....	John W. Killmond..	April 13, '11	Silent.	78 days, 22 hrs.	Contused right hip.
" 15 " "	Hostler.....	Frank Doerer.....	July 11, '11	In quarters.	17 days, 20 hrs.	Wrenched back.
" 16 " "	Tillerman.....	Edward B. Beach...	Oct. 9, '11	414	11 days, 8 hrs.	Injured eyes.
" 16 " "	Asst. Tillerman	Joseph McGuirk.....	May 3, '11	5221	9 days, 12 hrs.	Sprained shoulder.
" 16 " "	Ladderman....	Charles J. Cain.....	Oct. 23, '11	In quarters.	10 days, 4 hrs.	Sprained right knee.
" 16 " "	Ladderman....	Charles J. Cain.....	Nov. 4, '11	358	55 days, 8 hrs.	Sprained right knee.
" 17 " "	Lieutenant....	Christ. H. Fitzberger	July 18, '11	In quarters.	5 days, 16 hrs.	Abscess on left thigh.
" 17 " "	Captain	John Grasmick.....	July 21, '11	Vacation.	Not off duty.	Infected left thumb.
" 17 " "	Hostler.....	M. L. Waldhauser..	April 11, '11	In quarters.	Not off duty.	Middle toe of right foot cut.
" 17 " "	Ladderman....	Harry J. Lassen....	Oct. 14, '11	In quarters.	Not off duty.	Little finger of left hand cut.
No. 2 Water Tower..	Lieutenant....	Bankard B. Guthrie.	Nov. 16, '11	In quarters.	Not off duty.	Lacerated thumb.
" 2 " " ..	Hostler.....	Andrew Heselbach..	Oct. 14, '11	In quarters.	Not off duty.	Mashed toe.
" 2 " " ..	Pipeman.....	John Schmidt.....	July 1, '11	In quarters.	Not off duty.	Lacerated lip.
H. P. S. Pump. Sta.	Stoker	Alonzo Nickum.....	June 2, '11	In quarters.	5 days, 12 hrs.	Sprained left knee.

ROSTER OF THE DEPARTMENT

AND

LOCATION OF COMPANIES

1911

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
George W. Horton....	65	March 1, 1862...	Chief Engineer...	2502 N. Calvert street.....	Wireworker
August Emrich.....	49	June 13, 1884...	Dep. Chf. Engineer	1532 W. Fayette street.....	Coal dealer.
James T. Dunn.....	50	April 1, 1890...	1st Dist. " ...	873 W. Fayette street....	Ironmolder.
James A. Campbell...	47	Jan. 16, 1894...	2d " " ...	503 W. Saratoga street...	Stonecutter.
Frederick Branan.....	64	April 21, 1879...	3d " " ...	324 W. Twenty-first street.	Harnessmaker.
E. Louis Shipley.....	51	July 1, 1891...	4th " " ...	2123 McCulloh street.....	Shoemaker.
Levin H. Burkhardt...	44	Nov. 3, 1890...	5th " " ...	953 Madison avenue.....	Carpenter.
John Kahl.....	42	Feb. 1, 1894...	6th " " ...	102 Warren avenue.....	Driver.
Fielding H. Lucas....	60	April 1, 1881...	7th " " ...	Walbrook ave. and 12th st.	Typefounder.
Michael A. Lind.....	49	July 13, 1887...	8th " " ...	400 S. Patterson Park ave.	Painter.
Thomas H. Meushaw..	55		Supt. Machinery..	2204 E. Lombard street....	Machinist.
John N. Bletzer.....	48	May 1, 1885...	Asst. Supt. Mach.	722 S. Bond street.....	Machinist.
		Jan. 25, 1889...			

No. 1 ENGINE COMPANY.—Located on Paca Street, near Mulberry Street.
Organized February 15, 1859.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John Watson.....	38	Dec. 15, 1897...	Captain	942 W. Mulberry street...	Carpenter.
Francis H. Carr.....	35	Dec. 15, 1898...	Lieutenant	2556 W. Baltimore street..	Steamfitter.
John M. Foard.....	41	Dec. 15, 1897...	Engineman	208 N Carey street.....	Machinist.
Joseph R. Shea.....	28	July 1, 1907...	Asst. Engineman.	38 S. Pulaski street.....	Pipefitter.
William H. Stafford...	28	Jan. 20, 1908...	Hostler	1408 W. Lafayette avenue.	Motorman.
Frank L. Ellerman...	25	March 16, 1908...	Asst. Hostler.....	826 S. Paca street.....	Laborer.
James F. Legg.....	36	March 15, 1906...	Pipeman.....	844 W. Lexington street..	Clerk.
Frederick N. Walther,	27	Jan. 1, 1907...	Pipeman	1319 Light street.....	Candymaker.
John E. Towner.....	36	May 1, 1909...	Pipeman	1127 Carroll street.....	Bridgebuilder.
Jesse Marler.....	30	Sept. 25, 1909...	Pipeman	1004 N. Bond street.....	Laborer.
Joseph A. Krampe....	32	Jan. 1, 1911...	Pipeman	1006 Warner street.....	Riveter.
Cooper Elliott.....	29	April 6, 1905...	Pipeman	10 S. Potomac street....	Plumber.

No. 2 ENGINE COMPANY.—Located on Barre Street, near Sharp Street.
Organized February 15, 1859.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Henry Stagge	46	July 1, 1891	Captain	325 S. Mount street	Ironmolder
Edward A. Ward	38	March 15, 1895	Lieutenant	658 Columbia avenue	Driver.
Patrick F. Donnelly	44	March 20, 1907	Engineman	436 E. Randall street	Railroad engineer.
Charles M. Potter	43	Jan. 31, 1902	Asst. Engineman	614 E. Fort avenue	Machinist.
Frank Hines	47	April 30, 1890	Hostler	936 S. Sharp street	Tinner.
William Walker	37	Aug. 15, 1909	Asst. Hostler	214 N. Poppleton street	Carpenter.
William H. Bell	53	May 22, 1894	Pipeman	1142 Cleveland street	Blacksmith.
George D. Shanks	53	Dec. 13, 1896	Pipeman	1107 W. Cross street	Shoemaker.
Robert S. Tate	32	Feb. 1, 1906	Pipeman	115½ Stafford street	Driver.
Charles L. Schueler	29	March 19, 1908	Pipeman	28 E. Hamburg street	Clerk.
Charles W. Nelson	31	March 19, 1910	Pipeman	919 S. Charles street	Pilot.
Louis Bossert	24	Feb. 7, 1911	Pipeman	143 Wilkins street	Butcher.
Harry Dolle	23	Dec. 11, 1911	Probationer	769 Ramsay street	Rigger.

No. 3 ENGINE COMPANY.—Located on Lombard Street, near High Street.
Organized February 15, 1859.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
August Schlimm	45	April 1, 1890	Captain	305 S. Central avenue	Driver.
Joseph A. Dove	32	Oct. 1, 1902	Lieutenant	1114 Greenmount avenue	Butcher.
Joseph P. Whalen	45	July 28, 1896	Engineman	116 S. Ann street	Machinist.
Charles E. Draubauer	27	Aug. 8, 1910	Asst. Engineman	810 S. Linwood avenue	Engineer.
Herman Fumbaugh	53	April 1, 1888	Hostler	1911 Fairmount avenue	Hostler.
John Hildwein	31	March 16, 1908	Asst. Hostler	1637 Orleans street	Driver.
James Baroch	39	June 4, 1906	Pipeman	404 N. Streeper street	Tailor.
William Wambold	36	April 5, 1906	Pipeman	2811 Eastern avenue	Paperhanger.
Howard Elliott	26	July 1, 1907	Pipeman	10 S. Potomac street	Painter.
Charles Fay	53	Feb. 14, 1893	Pipeman	21 E. Ostend street	Carpenter.
John Richards	41	April 7, 1906	Pipeman	2310 E. Biddle street	Motorman.
Charles Rehberger	38	Sept. 25, 1909	Pipeman	812 S. Curley street	Coppersmelter.
George Watchman	40	March 21, 1905	Probationer	2205 Orleans street	Clerk.

No. 4 ENGINE COMPANY.—Located on Lexington Street, near North Street.
Organized February 15, 1859.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John R. Herr	40	Nov. 20, 1895	Captain	2913 E. Baltimore street	Clothing cutter.
Frank G. Smith	38	April 1, 1897	Lieutenant	2426 E. Fayette street	Can capper.
Thomas F. Sexton	57	July 1, 1888	Engineman	1645 N. Fulton avenue	Machinist.
William Fahey	27	Jan. 1, 1908	Asst. Engineman	508 N. Washington street	Engineer.
George Yurek	38	March 13, 1899	Hostler	121 S. Regester street	Brass finisher.
Thomas M. Farrell	31	Oct. 14, 1902	Asst. Hostler	1326 N. Broadway	Driver.
Wade H. Jones	33	Nov. 23, 1900	Pipeman	1816 N. Regester street	Driver.
Charles E. Smith	31	March 19, 1910	Pipeman	500 N. Washington street	Painter.
David F. Laumaster	27	July 1, 1909	Pipeman	828 N. Bond street	Driver.
William R. Holloran	28	Feb. 7, 1911	Pipeman	1106 Ashland avenue	Laborer.
John Blum	29	Feb. 7, 1911	Pipeman	1004 N. Bond street	Yeastmaker.
Thomas J. Radigan	23	Nov. 19, 1910	Pipeman	1316 Valley street	Laborer.
Thomas F. McGann	36	Nov. 5, 1910	Probationer	242 Albemarle street	Driver.

No. 5 ENGINE COMPANY.—Located on Ann Street, near Gough Street.
Organized April 1, 1859.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
George W. Shipley	53	Nov. 30, 1889	Captain	714 N. Lakewood avenue	Gilder.
George E. Wellslager	39	Dec. 15, 1897	Lieutenant	241 N. Patterson Park ave.	Shear cutter.
John Lindeman	64	April 7, 1889	Engineman	2036 Bank street	Machinist.
Henry Ulrich	32	Nov. 30, 1907	Asst. Engineman	504 S. Lakewood avenue	Marine engineer
Andrew German	37	Oct. 1, 1902	Hostler	513 N. Washington street	Clerk.
John L. Doerer	25	Aug. 1, 1909	Asst. Hostler	927 S. Linwood avenue	Machinist helper.
Henry R. Seippel	62	Dec. 1, 1874	Pipeman	103 S. Ann street	Barber.
Robert J. Moritz	41	May 4, 1904	Pipeman	517 S. Ann street	Mariner.
Bernard E. Weiss	36	Nov. 19, 1903	Pipeman	1805 E. Gough street	Clerk.
Robert C. Lambdin	30	June 9, 1908	Pipeman	1731 Bank street	Sheet metalworker
Joshua H. Miller, Jr.	23	Aug. 8, 1910	Pipeman	510 S. Ellwood avenue	Painter.
Henry Weber	26	June 13, 1911	Pipeman	1423 Holbrook street	Tanner.

No. 5 ENGINE COMPANY.—Located corner Gay and Ensor Streets.
Organized April 1, 1859.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Charles Betz	58	Sept. 4, 1885	Captain	426 Colvin street	Shoemaker.
Fred'k H. Kaufman	39	Sept. 7, 1895	Lieutenant	2010 E. Madison street	Carriagesmith.
Henry G. Neimann	42	May 31, 1903	Engineman	3004 O'Donnell street	Stationary engineer.
Bernd. Bauernschmidt,	28	Aug. 8, 1910	Asst. Engineman	29 N. Potomac street	Machinist.
Charles L. Schulte	53	Nov. 10, 1892	Hostler	1221 N. Eden street	Butcher.
Gustave Miller	39	March 1, 1895	Asst. Hostler	507 N. Bond street	Hostler.
Charles Hesse	43	Nov. 5, 1897	Pipeman	1126 E. Lombard street	Shoemaker.
John J. Eslinger	36	March 24, 1903	Pipeman	126 Grove street	Barber.
William A. Lane	34	June 11, 1906	Pipeman	16 S. Front street	Carpenter.
John J. Connolly	30	Sept. 21, 1905	Pipeman	1023 N. Central avenue	Stonecutter.
John Kaiser	36	May 29, 1909	Pipeman	945 N. Washington street.	Tailor.
Thomas G. Campbell	24	Sept. 25, 1909	Pipeman	415 East street	Pipefitter.
John Trageser	21	Dec. 21, 1911	Probationer	5 Gorsuch avenue	Shipfitter.

No. 7 ENGINE COMPANY.—Located corner Eutaw Street and Druid Hill Avenue.
Organized June 15, 1859.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Frank J. Lavender	40	July 9, 1895	Captain	203 N. Poppleton street	Laborer.
Robert H. Blatchley	40	Feb. 14, 1893	Lieutenant	435 Twenty-seventh street.	Painter.
William E. Koontz	40	July 15, 1901	Engineman	2415 Druid Hill avenue	Machinist.
Walter H. Solloway	25	Jan. 20, 1908	Asst. Engineman	16 W. Henrietta street	Machinist.
Harman Schminger	57	April 1, 1890	Hostler	934 W. Fayette street	Hostler.
Charles J. Satterfield.	33	Jan. 15, 1905	Asst. Hostler	1911 E. Preston street	Hospital janitor.
Frank B. Gray	33	Dec. 2, 1903	Pipeman	869 W. Lexington street	Shoecutter.
Sam'l H. Cottingham,	31	March 15, 1906	Pipeman	2503 Maryland avenue	Solderer.
Frank M. Schilling	33	Feb. 21, 1908	Pipeman	2405 Jefferson street	Electrician.
Harry A. Davis	26	Aug. 1, 1909	Pipeman	421 E. Preston street	Billposter.
William H. Zander	26	March 23, 1911	Pipeman	606 S. Rose street	Boxmaker.
Charles H. Fink	26	March 26, 1911	Pipeman	1514 N. Dallas street	Parquetry floor layer.
Charles G. Engleman	25	Aug. 12, 1911	Probationer	231 N. Fulton avenue	Driver.

No. 8 ENGINE COMPANY.—Located on Mulberry Street, near Arlington Avenue.
Organized March 8, 1871.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
William J. Stewart...	60	March 26, 1875...	Captain.....	424 N. Arlington avenue..	Tinner.
James E. McDonnell..	35	June 15, 1902...	Lieutenant.....	1605 W. Lombard street...	Clerk.
Jacob S. Corns.....	59	March 1, 1865...	Engineman.....	437 E. North avenue.....	Machinist.
Thomas E. Chaplain..	29	Sept. 17, 1910...	Asst. Engineman..	521 N. Stricker street....	Marine engineer.
Michael J. Kennedy...	30	Sept. 16, 1904...	Hostler	925 W. Franklin street...	Driver.
Harry V. Berry.....	38	Sept. 14, 1907...	Asst. Hostler	2123 Hollins street.....	Truck builder.
Walter Filling.....	36	Oct. 5, 1898...	Pipeman	600 S. Smallwood street..	Watchman.
John N. Dittman.....	30	Sept. 18, 1903...	Pipeman	1621 W. Baltimore street..	Patternmaker.
Frederick Kahl.....	40	Feb. 1, 1906...	Pipeman	2002 W. Lafayette avenue..	Blacksmith.
Oswald Pueschel.....	27	Nov. 16, 1907...	Pipeman	508 S. Smallwood street..	Baker.
George R. Chapman..	37	Feb. 16, 1909...	Pipeman	132 S. Gilmor street.....	Telegraph operator.
John J. Bosley.....	30	Nov. 18, 1909...	Pipeman	237 S. Calhoun street.....	Candymaker.

No. 9 ENGINE COMPANY.—Located corner Madison and McDonogh Streets.
Organized March 1, 1872.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Zachariah H. Foote...	47	Feb. 26, 1892...	Captain.....	1735 Federal street.....	Molder.
John P. Weinknecht...	34	Aug. 3, 1901...	Lieutenant.....	2306 E. Fayette street.....	Bricklayer.
Daniel R. Rogers.....	65	Feb. 1, 1872...	Engineman.....	1505 E. Madison street....	Machinist.
William H. Waltimyer.	42	July 1, 1907...	Asst. Engineman..	2408 Ashland avenue.....	Engineer.
Frisby Lloyd.....	51	Dec. 11, 1896...	Hostler	727 N. Chester street.....	Canmaker.
William Humphreys...	32	Aug. 2, 1906...	Asst. Hostler	2239 McElderry street	Fireman.
John Amend.....	50	Oct. 17, 1892...	Pipeman	1729 E. Preston street.....	Boxmaker.
Richard V. Pittinger..	63	April 1, 1880...	Pipeman	533 Luzerne street.....	Carpenter.
Emil Kadan.....	30	June 30, 1903...	Pipeman	444 Lakewood avenue.....	Tailor.
Fred'k C. Brockman..	27	Jan. 1, 1908...	Pipeman	1601 E. Madison street....	Blacksmith.
George W. Schneider..	28	Dec. 14, 1906...	Pipeman	1911 Fairmount avenue....	Driver.
Eugene B. Coleman...	25	Dec. 22, 1909...	Pipeman	512 S. Grove street.....	Car inspector.
John F. W. Holdefer.	24	Aug. 12, 1911...	Probationer.....	2429 E. Biddle street.....	Mariner.

No. 10 ENGINE COMPANY.—Located on Columbia Avenue, near Poppleton Street.
Organized December 16, 1872.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
George W. Smith	54	May 12, 1890	Captain	903 Columbia avenue	Plumber and gasfitter.
John L. Smith	30	Aug. 5, 1903	Lieutenant	21 Gorman avenue	Notion packer.
George C. Lloyd	43	Feb. 29, 1892	Engineman	1213 W. Cross street	Machinist.
Charles A. Fraser	46	March 28, 1898	Asst. Engineman	1405 Hollins street	Machinist.
George Momberger	36	Dec. 1, 1907	Hostler	602 W. Cross street	Expressman.
John F. Paul	35	Sept. 20, 1903	Asst. Hostler	1941 Ramsay street	Motorman.
William W. Roach	35	Feb. 4, 1905	Pipeman	1903 W. Lombard street	Salesman.
William H. Risley	27	Jan. 1, 1907	Pipeman	1931 Wilkins avenue	Mariner.
Charles F. Hill	35	Aug. 15, 1909	Pipeman	209 S. Mount street	Driver.
Edward McDonald	27	April 15, 1910	Pipeman	408 N. Poppleton street	Clerk.
Andrew J. Heird	34	Aug. 15, 1909	Pipeman	418 N. Gilmor street	Lineman.
Peter J. Reed	24	Nov. 29, 1909	Pipeman	1218 Carroll street	Molder.

No. 11 ENGINE COMPANY.—Located corner Patterson Park and Eastern Avenues.
Organized December 1, 1874.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Howard Travers	36	April 29, 1897	Captain	115 N. Linwood avenue	Weaver.
William S. Couzens	50	Feb. 4, 1898	Lieutenant	1640 N. Bond street	Collarmaker.
John Calder	64	Oct. 8, 1870	Engineman	422 S. Patterson Park ave	Machinist.
John A. Liebig	41	July 1, 1903	Asst. Engineman	107 N. Curley street	Fireman.
Joshua H. Miller	55	Nov. 10, 1885	Hostler	510 S. Ellwood avenue	Cigarmaker.
John H. Liedlich	30	Aug. 5, 1903	Asst. Hostler	213 N. Linwood avenue	Conductor.
Philip Peacock	53	March 1, 1895	Pipeman	2813 Eastern avenue	Tinner.
Andrew A. Albert	46	April 6, 1895	Pipeman	2911 Eastern avenue	Hostler.
Edward F. Stanton	37	Aug. 5, 1903	Pipeman	108 N. Potomac street	Ironmolder.
John T. McDonough	30	Jan. 20, 1908	Pipeman	308 S. Chester street	Stovemounter.
Leonard L. Sachs	26	March 16, 1908	Pipeman	2330 Orleans street	Ironmolder.
Walter H. Frederick	29	Sept. 25, 1909	Pipeman	1807 Gough street	Driver.
Carl E. Bladin	26	Dec. 11, 1911	Pipeman	1327 N. Milton avenue	Machinist.

No. 12 ENGINE COMPANY.—Located corner Fort and Riverside Avenues.
Organized January 1, 1875.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
William Kimball.....	39	March 1, 1895...	Captain.....	101 W. Gittings street....	Paperhanger.
William H. Chester...	48	July 21, 1899...	Lieutenant.....	1512 Henry street	Driver.
William F. Welsh....	48	May 9, 1893...	Engineman.....	1642 S. Charles street.....	Machinist.
Gordon J. Cronin.....	25	Aug. 8, 1910...	Asst. Engineman..	1536 Riverside avenue.....	Machinist.
George L. Krausz....	44	Dec. 15, 1897...	Hostler	1434 Marshall street	Brushmaker.
John G. Geiger.....	39	Sept. 30, 1903...	Asst. Hostler.....	1721 Byrd street	Driver.
Robert T. Forsythe...	43	Feb. 24, 1899...	Pipeman	1429 William street	Tinner.
Charles H. Hamilton..	36	March 13, 1903...	Pipeman	1516 Byrd street	Motorman.
Arthur L. King.....	25	July 1, 1909...	Pipeman	1407 Covington street	Fireman.
John F. Finkernagel..	29	Nov. 1, 1906...	Pipeman	1528 Light street.....	Railroad fireman.
Thomas J. Irwin.....	28	Sept. 25, 1909...	Pipeman	409 Sanders street	Ship carpenter.
John P. Readon.....	33	Nov. 27, 1909...	Pipeman	1404 Decatur street.....	Fireman.

No. 13 ENGINE COMPANY.—Located corner Fremont and Myrtle Avenues.
Organized March 17, 1876.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation
Frederick C. Weiss...	38	Oct. 1, 1896...	Captain.....	312 S. Wolfe street.....	Machinist.
Robert J. Thompson...	32	Oct. 1, 1902...	Lieutenant.....	110 S. Ann street.....	Electrician.
Frank R. Nehran.....	46	July 6, 1890...	Engineman.....	1949 Mosher street.....	Machinist
John Leser.....	36	Nov. 22, 1900...	Asst. Engineman..	1809 E. Lafayette avenue..	Ironworker.
Edward B. Griffin....	41	Jan. 20, 1908...	Hostler	1110 N. Gilmor street.....	Driver.
Henry Ruley.....	26	Dec. 22, 1909...	Asst. Hostler.....	2621 Fleet street	Driver.
Clifton Hedley.....	39	April 8, 1897...	Pipeman	821 N. Fulton avenue....	Painter.
Harry C. Grimes.....	42	June 4, 1897...	Pipeman	901 N. Appleton street....	Machinist.
George A. Lenz.....	31	Aug. 5, 1903...	Pipeman	1214 Laurens street.....	Gasfitter.
Fred'k W. Scheive....	29	Jan. 20, 1908...	Pipeman	1731 N. Chester street.....	Cementer.
Henry F. McShane...	27	Jan. 20, 1908...	Pipeman	723 E. Chase street.....	Laborer.
George T. Whiteley...	30	Sept. 1, 1907...	Pipeman	1730 W. Lanvale street....	Driver.
Albert V. Cramblitt..	25	Dec. 11, 1911...	Probationer	864 Columbia avenue	Machine hand.

No. 14 ENGINE COMPANY.—Located on Hollins Street, near Monroe Street.

Organized July 11, 1888.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Jacob F. Rupp	54	June 29, 1888	Captain	2536 W. Baltimore street	Plasterer.
John J. Schlag	44	Nov. 27, 1897	Lieutenant	1146 Scott street	Ironmolder.
John Gaffney	56	April 1, 1880	Engineman	1925 Hollins street	Machinist.
Charles A. Litchfield	37	Dec. 15, 1897	Asst. Engineman	2019 Hollins street	Machinist.
Reuben E. Bradford	27	Feb. 21, 1908	Hostler	3 N. Gorman avenue	Laborer.
William E. Schultz	34	Aug. 5, 1903	Asst. Hostler	2106 W. Pratt street	Motorman.
Augustus I. Walker	47	Oct. 8, 1898	Pipeman	813 N. Gilmor street	Plumber.
Frank P. Kerr	34	Sept. 19, 1903	Pipeman	2128 W. Baltimore street	Butcher.
Howard A. Davis	27	July 1, 1907	Pipeman	339 S. Gilmor street	Paperhanger.
Richard M. Keen	29	June 1, 1910	Pipeman	112 N. Payson street	Shoecutter.
George W. Weber	31	Jan. 1, 1911	Pipeman	2030 Boyd street	Laborer.
William C. Meredith	29	Jan. 1, 1911	Pipeman	1624 Braddish avenue	Fireman.

No. 15 ENGINE COMPANY.—Located on Lombard Street between Howard and Eutaw Streets.

Organized August 20, 1891.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
William J. McDonald.	43	March 1, 1895...	Captain.....	916 N. Patterson Park ave.	Canmaker.
John B. Hart.....	28	Jan. 15, 1905...	Lieutenant.....	900 Gorsuch avenue.....	Printer.
Henry Miller.....	38	Nov. 23, 1900...	Lieutenant.....	1101 Bayard street.....	Driver.
William F. Awalt.....	51	April 1, 1890...	Engineman.....	312 N. Poppleton street...	Machinist.
Charles T. Gallion....	27	July 1, 1909...	Asst. Engineman..	623 W. Conway street....	Machinist.
Charles F. A. Kramer.	24	July 1, 1911...	Asst. Engineman..	1318 Sargeant street	Machinist.
John T. Dunn.....	24	Nov. 24, 1911...	Asst. Engineman..	873 W. Fayette street....	Electrician.
Charles H. Heinbock..	41	June 7, 1901...	Hostler	855 W. Lexington street..	Driver.
John R. Miller.....	30	April 6, 1906...	Asst. Hostler.....	348 S. Smallwood street..	Driver.
Conrad G. Smith.....	29	Jan. 1, 1907...	Asst. Hostler....	9 S. Chappel street....	Broommaker.
John C. Luckhardt...	40	Feb. 21, 1900...	Pipeman	522 S. Potomac street....	Canmaker.
John W. Bosley.....	37	Jan. 1, 1907...	Pipeman	1442 S. Charles street.....	Laborer.
Joseph P. Lyons.....	32	March 16, 1908...	Pipeman	2010 Homewood avenue...	Clerk.
Martin J. Lindung....	27	Oct. 9, 1908...	Pipeman	1123 William street	Laborer.
David L. Carter.....	31	April 16, 1908...	Pipeman	708 N. Payson street.....	Clerk.
John B. Sanner, Jr....	29	Nov. 18, 1909...	Pipeman	6 N. Bradford street...	Inspector.
John T. Gately.....	26	April 16, 1910...	Pipeman	310 S. Poppleton street..	Boiler cleaner.
Robert S. Downs.....	36	Dec. 8, 1904...	Pipeman	910 W. Lexington street..	Motorman.
John W. Fries.....	25	Nov. 11, 1910...	Pipeman	4 S. Ellwood avenue...	Bricklayer.
Joseph J. Joyce.....	26	Jan. 1, 1911...	Pipeman	302 E. Fort avenue.....	Printer.
Robert Graef.....	33	Oct. 1, 1910...	Pipeman	20 E. Gittings street....	Sailor.
John F. Krampe.....	33	Aug. 15, 1909...	Probationer.....	756 W. Hamburg street...	Machinist.
William P. Fritz.....	29	Sept. 9, 1911...	Probationer.....	1222 Battery avenue	Printer.
George H. Hilgeman..	23	Dec. 11, 1911...	Probationer.....	1718 E. Fayette street.....	Clerk.

No. 16 ENGINE COMPANY (FIRE BOAT).—Located foot of President Street.
Organized August 20, 1891.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
James Ross	35	March 26, 1898	Captain	2635 N. Calvert street	Pilot.
Louis Harrer	53	Dec. 19, 1892	Lieutenant	223 S. Chester street	Wharf builder.
Malcom Pierce	27	Aug. 1, 1909	Pilot	717 N. Milton avenue	Pilot.
Charles Wilser	37	Feb. 1, 1907	Pilot	1926 Gough street	Mariner.
William Sbisa	47	July 28, 1896	Chief Engineer	633 N. Patterson Park ave.	Marine engineer
Adam Hoernner	38	Jan. 15, 1905	1st Asst. Engineer	869 W. Lexington street	Candymaker.
Nicholas Debinski	33	Aug. 22, 1910	2d Asst. Engineer	525 S. Kenwood avenue	Marine engineer.
John Seabreeze	66	Feb. 5, 1893	Stoker	431 N. Montford avenue	Painter.
Andrew Gier	28	May 21, 1910	Stoker	1913 E. Lombard street	Silversmith.
Edward Kraeger	42	Feb. 20, 1899	Stoker	2811 Fait avenue	Driver.
William Siebert	49	Oct. 1, 1897	Pipeman	2408 Fait avenue	Stevedore.
Vincent Tacka	30	March 15, 1906	Pipeman	2042 Bank street	Laborer.
Joseph Doughty	25	March 16, 1908	Probationer	121 N. Paca street	Clerk.

No. 17 ENGINE COMPANY.—Located corner Fort Avenue and Hanbert Street.
Organized March 17, 1895.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation
John Prenger	58	April 15, 1890	Captain	1411 Hull street	Machinist.
Edward C. Klessel	59	Feb. 11, 1882	Lieutenant	1442 Riverside avenue	Gilder.
Charles T. Taylor	37	June 1, 1898	Engineman	1512 Hanover street	Machinist.
William J. McKew	24	July 1, 1909	Asst. Engineman	1335 Hanover street	Machinist.
Casper Kraft	51	Dec. 9, 1892	Hostler	417 Folsom street	Driver.
Charles H. Wheatley	52	Feb. 26, 1896	Asst. Hostler	1232 Battery avenue	Boilermaker.
James Catterton	62	Oct. 23, 1886	Pipeman	1460 William street	Painter.
John Moeller	44	Oct. 23, 1893	Pipeman	1380 E. Fort avenue	Packer.
Frank A. Kraft	41	July 7, 1894	Pipeman	1521 Light street	Painter.
Joseph Neubert	58	March 1, 1895	Pipeman	1364 Andre street	Electrician.
Jacob Kirkwood	35	Aug. 5, 1903	Pipeman	406 Folsom street	Huckster.
Charles Neubeck	32	Oct. 1, 1902	Pipeman	1238 E. Fort avenue	Laborer.

No. 18 ENGINE COMPANY.—Located on Twenty-first Street, near Maryland Avenue.
Organized February 14, 1893.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John H. Morgan	60	Nov. 29, 1872	Captain	1907 Oak Hill avenue	Paperhanger.
Daniel V. O'Sullivan	35	Nov. 19, 1903	Lieutenant	1208 Greenmount avenue	Clerk.
Daniel H. Weber	51	Aug. 1, 1889	Engineman	1719 Westwood avenue	Machinist.
George E. Osbourne	25	Sept. 11, 1910	Asst. Engineman	2637 Greenmount avenue	Engineer.
John F. George	30	Jan. 1, 1907	Hostler	401 Presstman street	Driver.
Walter F. Appleby	25	Jan. 1, 1908	Asst. Hostler	2008 Oakley street	Plumber.
John A. Frebert	36	Feb. 1, 1906	Pipeman	1810 E. Biddle street	Clerk.
Simon Mueller	26	Jan. 20, 1908	Pipeman	2643 Maryland avenue	Brass finisher.
Regld. V. Hornberger	32	Jan. 16, 1910	Pipeman	1915 N. Regester street	Steelworker.
John J. Roberts	25	March 19, 1910	Pipeman	239 N. Gilmor street	Machine helper.
Julius Neubert	40	Jan. 1, 1907	Pipeman	1837 Harford avenue	Carpet layer.
Virgil C. Parsons	34	Jan. 1, 1907	Pipeman	2412 E. Hoffman street	Merchant.

No. 19 ENGINE COMPANY.—Located corner East North Avenue and Bond Street
Organized March 16, 1895.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
James Nolan	40	May 20, 1893	Captain	221 N. Fremont avenue	Collarmaker.
James H. Wentz	36	Sept. 1, 1898	Lieutenant	305 S. Poppleton street	Stonecutter.
John J. Carr	43	July 30, 1903	Engineman	403 S. Eden street	Marine engineer.
Joseph F. Daly	33	May 17, 1899	Asst. Engineman	1527 E. Madison street	Stoker.
Edward J. Doud	35	March 10, 1907	Hostler	1107 Ashland avenue	Driver.
Louis Lohman	51	March 6, 1895	Asst. Hostler	2042 Federal street	Varnisher.
Wm. McK. Morrow	43	March 14, 1895	Pipeman	1723 Aiken street	Paper carrier.
Bartley Halloran	40	Dec. 1, 1910	Pipeman	1318 Wilcox street	Scroll sawyer.
Stephen E. Freeze	26	March 16, 1908	Pipeman	2413 Ashland avenue	Driver.
William L. Erdman	29	July 1, 1907	Pipeman	918 N. Hopkins avenue	Masseur.
Joseph A. Baroch	23	Feb. 7, 1911	Pipeman	1900 E. Chase street	Clerk.
Francis J. Sullivan	25	Sept. 17, 1910	Pipeman	2335 E. Oliver street	Meat cutter.
William H. Richter	31	March 6, 1903	Probationer	28 Gorsuch avenue	Baker.

No. 20 ENGINE COMPANY.—Located on West North Avenue, near Tenth Street.
Organized December 21, 1896.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John W. Cook	50	May 7, 1893	Captain	1020 Fulton avenue	Baker.
William I. Johns	53	Aug. 3, 1888	Lieutenant	1303 N. Central avenue	Bricklayer.
John F. McCully	42	June 7, 1901	Engineman	Belle avenue, Forest Park	Machinist.
George G. Miller	40	Jan. 1, 1907	Asst. Engineman	1733 Thomas avenue	Machinist.
Richard H. Hobson	47	Aug. 2, 1896	Hostler	2806 Walbrook avenue	Driver.
Thomas A. Hobbs	26	Nov. 16, 1907	Asst. Hostler	114 S. Mount street	Woodworker.
Louis N. Streb	42	Aug. 5, 1903	Pipeman	1629 Westwood avenue	Stonecutter.
Charles H. Bitzel	30	Feb. 1, 1908	Pipeman	2019 N. Monroe street	Motorman.
Chas. G. Walterhofer	30	Sept. 26, 1908	Pipeman	523 S. Fulton avenue	Glycerine operator.
Paul F. Lawrence	35	July 16, 1901	Pipeman	Gertie avenue	Driver.
Upshur N. Riggs	29	Nov. 11, 1910	Pipeman	1410 Retreat street	Motorman.
M. Fred. Winkler	31	July 1, 1911	Pipeman	307 S. Smallwood street	Cooper.
John H. Eckert	30	Sept. 9, 1911	Probationer	618 N. Mount street	Railroad engineer.

No. 21 ENGINE COMPANY.—Located corner Roland Avenue and Oliver Place.
Organized December 15, 1897.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John R. Miller	41	March 1, 1895	Captain	413 Roland avenue	Carpenter.
William F. Morrow	61	April 1, 1876	Lieutenant	1119 Bolton street	Molder.
Jackson H. Hedrick	46	Dec. 23, 1896	Engineman	2149 Cromwell street	Machinist.
Frederick A. Robust	32	Aug. 8, 1910	Asst. Engineman	3809 Roland avenue	Machinist.
Thomas R. Wann	43	March 9, 1897	Hostler	250 Roland avenue	Driver.
John C. Yake	39	Jan. 1, 1908	Asst. Hostler	504 Hickory avenue	Driver.
James L. Clarken	52	Aug. 1, 1888	Pipeman	226 Hickory avenue	Driver.
Edward E. Harp	39	Oct. 1, 1897	Pipeman	740 Thirty-fifth street	Lineman.
Charles E. Jenkins	28	July 1, 1907	Pipeman	3021 Huntingdon avenue	Motorman.
Charles J. Noon	33	Aug. 7, 1907	Pipeman	820 Blucher avenue	Potter.
Oliver J. Young	25	Dec. 22, 1909	Pipeman	2514 Oak street	Motorman.
Frank J. Blessing	38	Sept. 9, 1911	Pipeman	2430 E. Biddle street	Blacksmith.

No. 22 ENGINE COMPANY.—Located on Linwood Avenue and O'Donnell Street.
Organized August 20, 1901.

Name.	Age.	Date of Appointment.	Position.	Residence	Former Occupation.
George E. Croucher...	48	March 1, 1888...	Captain.....	1124 S. Potomac street....	Canmaker.
William F. Meagher..	30	Nov. 17, 1904...	Lieutenant.....	1130 E. Monument street..	Driver.
George Dippel.....	35	Jan. 1, 1907...	Engineman.....	31 S. Curley street.....	Engineer.
Andrew S. Webster...	24	Nov. 6, 1910...	Asst. Engineman.	3030 E. Baltimore street...	Oiler.
Martin Lutz.....	39	Dec. 1, 1900...	Hostler	328 S. Robinson street....	Driver.
John A. Symonds.....	31	Nov. 5, 1906...	Asst. Hostler.....	2517 Foster avenue	Laborer.
John F. Curry.....	43	July 15, 1894...	Pipeman	1005 S. Linwood avenue...	Stove molder.
Joseph B. Whitney....	43	July 1, 1903...	Pipeman	3111 Dillon street	Furniture packer.
Anthony Schoepplein..	57	June 24, 1891...	Pipeman	311 S. Regester street.....	Cooper.
James C. Kimble.....	35	March 25, 1905...	Pipeman	2815 Eastern avenue.....	Potter.
William H. Minnick..	29	Sept. 26, 1908...	Pipeman	517 S. Potomac street....	Cooper.
Richard S. Kirby.....	39	Feb. 7, 1911...	Pipeman	3029 Dillon street	Carpenter.

No. 23 ENGINE COMPANY.—Located corner Saratoga Street and Tyson Alley.
Organized December 1, 1903.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Edward Tauber.....	45	June 1, 1890...	Captain.....	716 N. Mount street.....	Driver.
Eugene Short.....	44	June 7, 1901...	Lieutenant.....	219 W. Centre street.....	Hostler.
Frank Heiner.....	35	April 2, 1902...	Lieutenant.....	1028 W. Barre street.....	Piano polisher.
Robert R. Higgins....	36	May 12, 1899...	Engineman.....	138 N. Collington avenue.	Marine engineer.
August F. Myers.....	30	Nov. 1, 1906...	Asst. Engineman..	20 S. Hare street.....	Steamfitter.
Henry Spittel.....	38	Nov. 30, 1900...	Hostler	932 W. Mulberry street...	Driver.
Charles J. Miller.....	36	Feb. 7, 1905...	Asst. Hostler.....	2052 E. Federal street.....	Stonecutter.
Charles L. Sauerwein.	30	July 21, 1904...	Pipeman	2123 Vine street	Cigarmaker.
Louis J. Kisner.....	29	April 5, 1906...	Pipeman	219 W. Saratoga street....	Driver.
John J. O'Dea.....	27	Feb. 21, 1908...	Pipeman	525 E. Madison street....	Railroad fireman
John F. Hurley.....	28	Aug. 1, 1909...	Pipeman	2015 W. Hollins street....	Iron molder.
Thomas E. Branigan..	37	Sept. 11, 1910...	Pipeman	314 N. Paca street.....	Laborer.
Fred J. Loeffler.....	26	Jan. 1, 1911...	Pipeman	1918 Montrose street	Conductor.
Godfrey L. Fisher....	25	Dec. 21, 1911...	Probationer.....	714 N. Wolfe street.....	Chauffeur.

No. 24 ENGINE COMPANY.—Located on Patterson Park Avenue, near Fayette Street.
Organized July 28, 1904.

Name.	Age	Date of Appointment.	Position.	Residence.	Former Occupation.
Fred J. Strochlein....	39	Dec. 15, 1896...	Captain.....	435 N. Kenwood avenue..	Clerk.
Charles Rosenthal.....	53	Oct. 1, 1890...	Lieutenant.....	226 N. Kenwood avenue..	Carpenter.
William T. Hubbard..	53	Dec. 7, 1893...	Engineman.....	2735 E. Monument street..	Marine engineer.
Edw. R. McCullough..	54	May 29, 1896...	Asst. Engineman..	1737 E Lombard street....	Machinist.
Charles E. Diver.....	37	July 6, 1905...	Hostler	1116 N. Milton avenue....	Laborer.
Thos. A. Richardson..	36	Feb. 1, 1906...	Asst. Hostler.....	702 N. Glover street.....	Railroad fireman.
Constant Siebert.....	57	April 5, 1883...	Pipeman	400 N. Rose street.....	Driver.
Charles A. Edwards...	39	June 1, 1898...	Pipeman	1913 E. Chase street.....	Brakeman.
Charles H. Lambdin..	33	March 15, 1906...	Pipeman	204 N. Luzerne street....	Steamfitter.
Joseph J. Amrhein...	38	Jan. 1, 1907...	Pipeman	2812 Orleans street.....	Cooper.
Leonard J. Smelter...	34	Nov. 16, 1907...	Pipeman	431 N. Kenwood avenue..	Shearman.
Charles V. Murray....	24	April 16, 1910...	Pipeman	2229 E. Preston street.....	Nurse.

No. 25 ENGINE COMPANY.—Located corner McCulloh and Gold Streets.
Organized January 11, 1904.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
William R. Bolgiano..	51	May 10, 1897...	Captain.....	2129 Druid Hill avenue....	Clerk.
William Lamb.....	49	Aug. 7, 1894...	Lieutenant.....	2500 Druid Hill avenue....	Car driver.
Joshua E. Biggs.....	31	Feb. 1, 1906...	Engineman.....	1224 N. Gilmor street.....	Engineer.
Joseph L. Chason.....	36	May 14, 1908...	Asst. Engineman..	911 Woodley street	Marine engineer.
Courtney Crabster....	42	Sept. 8, 1899...	Hostler	835 Second avenue	Ironworker.
John S. Webb.....	49	March 9, 1899...	Asst. Hostler.....	1210 W. Fayette street.....	Driver.
Charles B. Smith.....	34	March 20, 1906...	Pipeman	2025 W. North avenue....	Driver.
Charles A. Barnes....	24	Feb. 7, 1911...	Pipeman	429 N. Lakewood avenue.	Lumbermarker.
Elmer C. Baker.....	28	Nov. 11, 1910...	Pipeman	1833 Aiken street	Driver.
James T. Wheatley...	29	Feb. 7, 1911...	Pipeman	1228 Aisquith street.....	Conductor.
Thomas R. Walsh.....	30	May 25, 1911...	Pipeman	157 N. Potomac street....	Clerk.
Frank Daugherty.....	27	Aug. 1, 1909...	Pipeman	1929 Wilhelm street	Ironworker.

No. 26 ENGINE COMPANY.—Located corner Leadenhall and West Streets.
Organized January 19, 1906

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation
Charles E. Donahue...	33	Nov. 23, 1900...	Captain.....	119 W. Clement street....	Clerk.
Edgar B. McKnew...	35	May 19, 1899...	Lieutenant.....	913 Columbia avenue.....	Horseshoer.
Lawrence T. Rudolph.	39	March 1, 1895...	Engineman.....	1214 S. Charles street.....	Marine engineer.
Nathan T. Poiner....	38	March 24, 1906...	Asst. Engineman..	1423 Jackson street	Steamfitter.
George D. Otto.....	33	Oct. 1, 1902...	Hostler	1625 Covington street	Driver.
William C. Becker....	37	Nov. 16, 1908...	Asst. Hostler.....	1023 Patapsco street.....	Upholsterer.
William H. Creighton.	31	Jan. 15, 1905...	Pipeman	1508 Jackson street	Painter.
John J. Rossiter.....	33	April 5, 1906...	Pipeman	7 W. Randall street	Clerk.
Benjamin Maaser.....	34	March 16, 1908...	Pipeman	317 S. High street.....	Motorman.
Richard Watkins.....	34	Feb. 1, 1906...	Pipeman	1420 Reynolds street	Switchlayer.
Wilbur R. Wagner....	25	Aug. 15, 1909...	Pipeman	2 W. Barney street	Machinist.
William E. Crispens..	24	Oct. 19, 1910...	Pipeman	65 E. Randall street.....	Laborer.

No. 27 ENGINE COMPANY.—Located on Columbia Avenue, between Greene and Paca Streets.
Organized June 14, 1906.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John T. Owens.....	39	July 25, 1896...	Captain.....	1412 W. Lombard street...	Armature winder.
Theodore G. Groth....	34	Feb. 1, 1902...	Lieutenant.....	2130 S. Charles street.....	Printer.
Charles W. Figgs.....	44	Aug. 10, 1901...	Engineman.....	643 Harvey street.....	Engineer.
Gerhard W. Nugent..	26	July 1, 1909...	Asst. Engineman..	421 S. Poppleton street...	Machinist.
C. Fred. Steinwedel..	28	Jan. 1, 1907...	Hostler	532 Brunswick street	Motorman.
Michael Beine.....	32	Aug. 15, 1909...	Asst. Hostler.....	1134 Scott street	Salvage corps.
Valentine Engelhardt..	28	March 15, 1906...	Pipeman	1159 Cleveland street.....	Clerk.
Emil Myers.....	26	Aug. 15, 1909...	Pipeman	1508 E. Madison street....	Ironworker.
John J. Stapleton.....	24	Aug. 8, 1910...	Pipeman	1044 W. Lombard street...	Railroad fireman.
Charles C. Woods....	28	Feb. 25, 1911...	Pipeman	2313 Barclay street	Laborer.
John E. Medlar.....	40	March 3, 1904...	Pipeman	1 W. Henrietta street..	Railroad conductor.
David M. Hanixman...	37	June 23, 1911...	Pipeman	411 Scott street	Stovefitter.
John T. Barry.....	27	Sept. 9, 1911...	Probationer	439 N. Lakewood avenue.	Laborer.

No. 28 ENGINE COMPANY.—Located corner Mt. Royal and Guilford Avenues.
Organized November 20, 1906.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Louis Buhler.....	39	Jan. 7, 1897...	Captain.....	1620 N. Washington street.	Blacksmith.
Giles J. O'Brien.....	36	Aug. 1, 1902...	Lieutenant.....	1235 Harford avenue	Molder.
Elijah J. B. Moore...	48	May 1, 1895...	Engineman.....	1306 Valley street.....	Machinist.
Walter L. Hudson...	25	July 1, 1909...	Asst. Engineman..	2640 Maryland avenue.....	Marine engineer.
Oliver K. Drury.....	44	May 18, 1901...	Hostler	2045 E. Hoffman street....	Paperhanger.
John F. Raymond.....	37	Jan. 20, 1900...	Asst. Hostler.....	1715 Guilford avenue	Hostler.
William F. Liedlich...	29	Jan. 15, 1905...	Pipeman	1805 N. Bethel street.....	Baker.
J. Howard Marshall..	32	Feb. 4, 1905...	Pipeman	517 N. Washington street.	Brass finisher.
Harvey Fleming.....	39	Aug. 24, 1905...	Pipeman	1820 E. Eager street.....	Laborer.
Jacob J. Krummeck...	30	Feb. 1, 1906...	Pipeman	225 N. Linwood avenue..	Laborer.
Harry S. Warthen....	31	July 1, 1909...	Pipeman	1219 E. Oliver street.....	Candymaker.
Clyde L. Moyer.....	27	Aug. 8, 1910...	Pipeman	1103 N. Montford avenue.	Plasterer.

No. 29 ENGINE COMPANY.—Located on Park Heights Avenue, near Kate Avenue.
Organized August 1, 1907.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Milton R. Quigley....	46	Nov. 21, 1897...	Captain.....	4507 Park Heights avenue.	Plumber.
George E. McNeil....	40	July 28, 1897...	Lieutenant.....	9 Kate avenue.....	Stoker.
William P. Patterson..	34	May 15, 1902...	Engineman.....	722 Thirty-fifth street	Engineer.
John F. Fitzgerald....	28	Nov. 24, 1911...	Asst. Engineman..	2561 W. Baltimore street..	Machinist.
Patrick H. Birthistle..	43	Feb. 14, 1893...	Hostler	1705 Slingluff avenue	Driver.
John G. Grimes.....	33	Feb. 16, 1909...	Asst. Hostler.....	1347 N. Gilmor street.....	Butcher.
William Eckert.....	53	April 15, 1887...	Pipeman	Reisterst'n rd. & Allen ave.	Brushmaker.
James A. DePuey....	49	Oct. 1, 1897...	Pipeman	1620 Edmondson avenue..	Paperhanger.
Roger N. Hayman....	24	Nov. 11, 1910...	Pipeman	4508 Pimlico road.....	Blacksmith.
Joseph M. Dillhofer..	25	Jan. 10, 1911...	Pipeman	4508 Pimlico road.....	Conductor.
Chester A. Bailey.....	23	Feb. 7, 1911...	Pipeman	212 N. Gay street.....	Salesman.
Fred'k W. Viehmyer..	51	July 13, 1893...	Pipeman	316 Pearl street.....	Driver.

No. 30 ENGINE COMPANY.—Located corner Frederick Road and Caton Avenue.
Organized July 6, 1907.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Andrew J. Bilson	60	July 2, 1896	Captain	629 N. Carey street	Plasterer.
Harry C. Showacre	42	June 15, 1902	Lieutenant	1938 Hollins street	Carpenter.
William H. Hardy	47	March 1, 1895	Engineman	306 S. Gilmor street	Machinist.
Bernard Armstrong	34	Jan. 4, 1909	Asst. Engineman	1008 William street	Stationary engineer.
George H. Mills	37	Oct. 19, 1898	Hostler	2 Louden avenue	Driver.
Ralph P. Johnston	36	Oct. 9, 1908	Asst. Hostler	4½ Kingsley street	Horsecollar maker.
George E. McParland	28	Dec. 22, 1906	Pipeman	2558 Frederick avenue	Laborer.
Charles J. Schalter	25	Jan. 1, 1908	Pipeman	2619 Lehman street	Butcher.
Guy S. Ellis	49	July 1, 1898	Pipeman	345 S. Stricker street	Wagon finisher.
William J. Riggs	33	Jan. 15, 1905	Pipeman	2108 Ashton street	Frame cutter.
William J. Watkins	49	Aug. 2, 1895	Pipeman	2010 W. Saratoga street	Cotton inspector.
Antone Yienger	47	July 23, 1889	Pipeman	1 Brunswick street	Candymaker.

No. 31 ENGINE COMPANY.—Located on Greenmount Avenue, near Gorsuch Avenue.
Organized January 1, 1907.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
James A. Clark	46	Aug. 25, 1891	Captain	444 Lorraine avenue	Driver.
Henry F. Boerner	51	March 1, 1895	Lieutenant	723 E. Twenty-second st.	Tinsmith.
John W. Eckhardt	43	Aug. 5, 1890	Engineman	629 Gorsuch avenue	Machinist.
John P. Foote	26	Jan. 1, 1908	Asst. Engineman	2239 E. North avenue	Engineer.
Andrew Kaufman	34	April 12, 1906	Hostler	1609 N. Montford avenue	Boxmaker.
George W. Witzgall	28	Jan. 1, 1909	Act. Asst. Hostler	2704 Boone street	Driver.
Frank P. McCarty	43	July 21, 1905	Pipeman	2409 Greenmount avenue	Carpenter.
Eugene Daly	28	April 7, 1906	Pipeman	1808 N. Washington street	Brass finisher.
William F. Propf	33	April 19, 1906	Pipeman	13 Independent street	Driver.
Charles R. Hare	38	Jan. 20, 1908	Pipeman	2454 Greenmount avenue	Painter.
A. J. McIntyre, Jr.	24	Dec. 22, 1909	Pipeman	1040 Aisquith street	Driver.
John F. Schultz	30	Nov. 27, 1909	Pipeman	1003 Riverside avenue	Shipwright.

No. 32 ENGINE COMPANY.—Located on Gay Street, between Baltimore and Water Streets.
Organized July 1, 1907.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
James J. Reynolds...	53	July 20, 1889...	Captain.....	431 Roland avenue.....	Driver.
Peter J. Lynch.....	31	Jan. 25, 1904...	Lieutenant.....	1926 Bank street.....	Boxmaker.
John Stanton.....	47	March 1, 1895...	Engineman.....	5 N. Luzerne street....	Machinist.
Joseph Hecht.....	35	Aug. 8, 1910...	Asst. Engineman..	2056 Eastern avenue	Engineer.
Milton Montgomery...	34	Nov. 23, 1900...	Hostler	121 N. Paca street.....	Electrician.
Fred'k W. Joeckel....	30	March 1, 1907...	Asst. Hostler.....	116 S. Washington street.	Driver.
George L. LaDomus..	31	Jan. 1, 1907...	Pipeman	405 N. Chester street.....	Clerk.
John Lund.....	42	Nov. 13, 1905...	Pipeman	261 S. Ann street.....	Mariner.
Michael P. O'Dea....	26	Aug. 15, 1909...	Pipeman	525 E. Madison street...	Cement finisher.
Geo. A. Sommerman..	28	April 16, 1908...	Pipeman	2112 E. Hoffman street....	Ironmolder.
William A. Wolf.....	26	May 1, 1910...	Pipeman	1728 Mulliken street.....	Driver.
Harry E. Manns.....	24	Jan. 1, 1911...	Pipeman	633 N. Patterson Park ave.	Marine fireman.

No. 33 ENGINE COMPANY.—Located corner Harford Avenue and Oliver Street.
Organized January 1, 1908.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John F. Maguire.....	43	Feb. 7, 1893...	Captain.....	1813 E. North avenue.....	Shipping clerk.
Clarence A. Kirby.....	51	Feb. 12, 1896...	Lieutenant.....	1507 E. Preston street.....	Carpenter.
John Lohnes.....	37	Jan. 1, 1903...	Engineman.....	2318 E. Preston street.....	Marine engineer.
Harry T. Cole.....	41	July 1, 1907...	Asst. Engineman..	1811 Barclay street.....	Railroad engineer.
Charles H. Jones.....	29	Jan. 1, 1908...	Hostler	1700 Lamont avenue	Driver.
Howard R. Pyle.....	39	Jan. 1, 1908...	Asst. Hostler.....	2303 Druid Hill avenue....	Fire patrolman.
Henry F. Brockman...	27	Jan. 1, 1908...	Pipeman	1501 N. Bond street.....	Carpenter.
Ernest C. LeCompte..	32	Nov. 19, 1903...	Pipeman	1408 Darley avenue.....	Conductor.
Henry C. Miller.....	34	March 10, 1904...	Pipeman	1743 N. Milton avenue.....	Butcher.
George N. Walker....	42	March 1, 1899...	Pipeman	390 E. Thirty-first street..	Plumber.
Harry Daly.....	23	Sept. 11, 1910...	Pipeman	1527 E. Madison street....	Blacksmith.
John Vacek.....	22	Feb. 7, 1911...	Pipeman	225 N. Curley street.....	Driver.

No. 34 ENGINE COMPANY.—Located on Caroline Street, near Gough Street.
Organized July 1, 1909.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
William C. D. Knight.	43	July 10, 1894...	Captain	120 N. Kenwood avenue..	Driver.
George L. Schlimm...	51	April 1, 1888...	Lieutenant.....	231 S. Bond street.....	Boxmaker.
John P. Cosgrove.....	37	Feb. 1, 1906...	Engineman.....	2639 Eastern avenue.....	Machinist.
Walter L. Batty.....	26	July 1, 1909...	Asst. Engineman.	1819 Orleans street.....	Machinist.
John W. Wentz.....	26	April 16, 1908...	Hostler	2047 Gough street.....	Boilermaker.
Herman W. Hoehn....	27	July 1, 1907...	Asst. Hostler.....	23 Belair avenue	Tinner.
Charles E. Hand.....	27	Aug. 1, 1909...	Pipeman	1903 Bank street.....	Driver.
Thomas Teichman, Jr.	30	July 1, 1909...	Pipeman	636 N. Grove street.....	Molder.
Richard B. Fanning...	39	Aug. 1, 1909...	Pipeman.....	13 N. Washington street.	Driver.
Peter T. O'Dea.....	25	July 9, 1909...	Pipeman	503 N. Exeter street.....	Laborer.
Christian W. Mattes..	29	Jan. 1, 1911...	Pipeman	522 S. Lakewood avenue..	Laborer.
John C. Silver.....	31	Feb. 7, 1911...	Pipeman	727 N. Spring street.....	Driver.

No. 35 ENGINE COMPANY.—Located corner Light and Montgomery Streets.
Organized July 1, 1909.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
J. Walter Bradley....	32	Jan. 3, 1903...	Captain	2903 Clifton avenue	Clerk.
William T. Newell....	38	June 7, 1901...	Lieutenant.....	1302 Valley street	Motorman.
Lawrence A. Brown...	40	May 1, 1907...	Engineman.....	525 S. Lakewood avenue..	Marine engineer.
Samuel Truett.....	46	Nov. 23, 1900...	Asst. Engineman.	2015 W. Lexington street.	Painter.
James Radford.....	46	March 9, 1897...	Hostler	1712 E. Lanvale street....	Hostler.
Frank C. Griffin.....	35	Oct. 23, 1909...	Asst. Hostler.....	807 S. Rose street.....	Tanner.
George A. Ford.....	53	March 6, 1896...	Pipeman	1302 N. Gilmor street....	Clerk.
Jacob Guidice.....	34	Oct. 10, 1904...	Pipeman	1633 Grover Place	Driver.
Lorenzo A. Dolle....	25	March 6, 1908...	Pipeman	21 N. Gilmor street.....	Boilermaker.
Thomas P. Kennedy..	41	March 19, 1908...	Pipeman	1310 Aisquith street.....	Clerk.
Carl H. Hoehn.....	24	Aug. 8, 1910...	Pipeman	23 S. Hare street.....	Silver chaser.
Allen G. Denny.....	35	Aug. 9, 1911...	Pipeman	1476 Reynolds street	Fireman.

No. 30 ENGINE COMPANY.—Located corner Edmondson Avenue and Bentalou Street.
Organized July 1, 1909.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John Eigenbrodt	51	Jan. 12, 1891	Captain	1134 Sargeant street	Wood carver.
Robert E. O'Keefe	42	June 15, 1902	Lieutenant	2416 Pennsylvania avenue	Motorman.
Thos. K. G. Milke	32	July 24, 1907	Engineman	2647 Frederick avenue	Stationary engineer.
W. M. Conway	30	May 21, 1909	Asst. Engineman.	7 S. Payson street	Electrician.
L. J. Fresch	69	Dec. 16, 1872	Hostler	1952 W. Mulberry street	Hostler.
C. H. Strahler	25	May 25, 1909	Asst. Hostler	1002 N. Patterson Park ave.	Driver.
C. J. Breivogel	37	Jan. 1, 1909	Pipeman	1030 Brantley avenue	Butcher.
J. M. Willhelm	36	Sept. 11, 1910	Pipeman	826 S. Paca street	Huckster.
L. S. Lynch	25	Nov. 11, 1910	Pipeman	1930 Edmondson avenue	Laborer.
E. J. Cavanaugh	31	May 25, 1911	Pipeman	1045 Hollins street	Laborer.
F. M. Walsh	30	Aug. 15, 1909	Pipeman	511 N. Monroe street	Tinner.
W. Herman	26	Aug. 15, 1909	Pipeman	1511 Kensett street	Lineman.

No. 37 ENGINE COMPANY.—Located corner Ridgely and West Streets.
Organized July 1, 1909.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Harry W. Rice	38	Jan. 9, 1899	Captain	810 Columbia avenue	Clerk.
William E. Bussard	37	May 24, 1904	Lieutenant	629 S. Paca street	Driver.
Harry C. Fitzgerald	42	March 26, 1904	Engineman	1447 Riverside avenue	Marine engineer.
William G. Adams	26	Feb. 1, 1907	Asst. Engineman.	3 S. Hare street	Boilermaker.
William Baxter	35	Feb. 21, 1908	Hostler	1308 William street	Tinner.
James E. Murphy	27	Jan. 20, 1908	Asst. Hostler	1826 W. Lombard street	Watchman.
Wm. A. Shoemaker	25	Jan. 1, 1908	Pipeman	214 S. Calhoun street	Pork packer.
Alexander Reinacker	38	July 1, 1909	Pipeman	541 W. Hamburg street	Laborer.
Harry Jones	37	Aug. 1, 1909	Pipeman	1819 Light street	Dock builder.
Clarence A. Blaney	29	Jan. 1, 1909	Pipeman	37 W. West street	Instructor.
William Manner	42	Oct. 1, 1902	Pipeman	1824 Hanover street	Laborer.
Albert Wise	32	Feb. 1, 1906	Pipeman	18 E. Montgomery street.	Driver.

No. 38 ENGINE COMPANY.—Located on Baltimore Street near Fremont Avenue.

Organized August 8, 1910

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John B. Bortell	46	Sept. 7, 1888	Captain	834 N. Patterson Park ave.	Ship rigger.
Frank Steineman	32	April 12, 1902	Lieutenant	205 S. Mount street	Electrician.
Jacob Crispens	37	March 11, 1903	Engineman	12 Gorman avenue	Blacksmith.
Herman F. Bode	27	July 1, 1909	Asst. Engineman.	750 McHenry street	Machinist.
John H. Wittig	32	Jan. 1, 1908	Hostler	509 S. Kenwood avenue	Laborer.
Walter V. Smith	31	March 15, 1906	Asst. Hostler	103 S. Potomac street	Laborer.
Wm. T. Blum	25	April 16, 1910	Pipeman	1004 N. Bond street	Ornamenter.
Wm. Schertle	25	April 16, 1910	Pipeman	2242 Preston Place	Laborer.
Joseph Deasel	27	April 16, 1910	Pipeman	127 S. Wolfe street	Hostler.
Albert A. Torney	47	May 11, 1897	Pipeman	127 Parkin street	Butcher.
James H. Foley	28	March 15, 1906	Pipeman	1625 W. Franklin street	Ironmolder.
Louis Albert	23	Jan. 1, 1911	Pipeman	2911 Eastern avenue	Upholsterer.

No. 39 ENGINE COMPANY (FIRE BOAT).—Located Pier 7, foot of President Street.
Organized November 5, 1910.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Joseph F. Danaher....	42	Dec. 8, 1904...	Lieutenant.....	32 S. Maplewood avenue.	Laborer.
Charles H. Pertner...	43	Feb. 1, 1906...	Pilot.....	241 S. Chester street.....	Pilot.
Harry G. Vaughan....	29	Nov. 11, 1910...	Pilot.....	2643 W. North avenue....	Pilot.
George G. Battersley..	37	Sept. 1, 1903...	Chief Engineer...	520 S. Kenwood avenue..	Marine engineer.
Charles L. Thompson.	44	Feb. 2, 1906...	1st Asst. Engineer	2304 E. Oliver street.....	Marine engineer.
James W. Paul.....	35	July 1, 1909...	2d Asst. Engineer.	522 S. Montford avenue..	Marine engineer.
Clarence M. Thomas..	31	Oct. 25, 1908...	3d Asst. Engineer.	808 Sharp street.....	Marine engineer.
George Burnett.....	34	Aug. 1, 1909...	Stoker	1750 E. Lombard street....	Stoker.
Alfred Hill.....	35	Oct. 29, 1909...	Stoker	2037 E. Lombard street....	Stoker.
Joseph Roycroft.....	34	July 4, 1908...	Stoker	1924 E. Fayette street.....	Tailor.
Christian Butt.....	28	Sept. 11, 1910...	Pipeman.....	827 S. Montford avenue..	Carpenter.
George Carroll.....	35	Sept. 11, 1910...	Pipeman.....	506 S. Streeper street....	Tanner.
Fred Strohl.....	30	July 9, 1909...	Pipeman.....	2922 Elliott street	Butcher.
James Vomastek.....	22	Feb. 7, 1911...	Pipeman.....	711 N. Collington avenue.	Tailor.
James Hoey.....	63	July 15, 1891...	Pipeman.....	218 S. Castle street.....	Stoker.
Robert Clarke.....	29	Aug. 8, 1910...	Pipeman.....	28 N. East avenue.....	Painter.
Charles Winkler.....	39	Jan. 20, 1908...	Pipeman.....	2110 Fairmount avenue ..	Lineman.
William Erbert.....	35	Aug. 12, 1911...	Probationer	244 S. Chester street.....	Rigger.

No. 40 ENGINE COMPANY.—Located temporarily at quarters of No. 20 Engine Company.
Organized April 12, 1911.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Charles Stroheker....	32	Nov. 19, 1903...	Lieutenant	306 Ashton street	Hair spinner.
Edward F. Duckett....	33	Jan. 1, 1911...	Pipeman	909 Dukeland street	Driver.
Atone G. Cvach.....	22	Jan. 1, 1911...	Pipeman	821 N. Washington street.	Machinist.
Edward T. Baney.....	33	Jan. 1, 1911...	Pipeman	208 N. Castle street.....	Laborer.
Harvey H. Baker.....	30	Dec. 22, 1909...	Pipeman	2500 Druid Hill avenue...	Elevator dispatcher.
George Baumann.....	24	Aug. 8, 1910...	Pipeman	1203 Clendenin street	Railroad conductor.
James R. Ford.....	26	Aug. 8, 1910...	Pipeman	911 Dukeland street	Tinworker.
Andrew J. Stuehler...	30	March 26, 1911...	Pipeman	123 N. Glover street.....	Tea packer.
Rudolph F. Lovell....	30	June 11, 1911...	Pipeman	1606 Gough street	Lumber inspector.
Samuel C. Smith.....	23	June 13, 1911...	Pipeman	1921 W. North avenue....	Motorman.
Matthew Carroll.....	55	April 8, 1896...	Pipeman	701 Roland avenue	Laborer.

No. 1 HOOK AND LADDER COMPANY.—Located on Gay Street, between Baltimore and Water Streets.
Organized February 15, 1859.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
James V. McCarron...	41	March 1, 1895...	Captain.....	2535 E. Monument street..	Potter.
Lewis R. Bell.....	36	June 30, 1903...	Lieutenant.....	1602 Patapsco street.....	Machinist helper.
Harry A. Donahoo....	43	May 29, 1896...	Tillerman.....	136 N. Curley street.....	Cutter.
John George.....	29	Nov. 1, 1906...	Asst. Tillerman...	1911 Fairmount avenue....	Cooper.
John Strominger.....	41	June 2, 1900...	Hostler	232 Port street.....	Driver.
August C. Hartman..	33	March 16, 1908...	Asst. Hostler.....	41 Belair avenue.....	Railroad fireman.
Zachary T. Seabreeze.	63	April 1, 1890...	Ladderman.....	129 N. Ann street.....	Driver.
Joseph H. Daly.....	57	Jan. 15, 1881...	Ladderman.....	1527 E. Madison street....	Stonecutter.
Michael J. Cooney....	26	July 1, 1907...	Ladderman.....	1719 E. Lombard street....	Driver.
Joseph A. Gallion....	26	June 1, 1907...	Ladderman.....	650 W. Lee street.....	Clerk.
Gerlack Debus.....	29	Oct. 25, 1908...	Ladderman.....	20 E. Heath street.....	Cigarbox maker.
Albert J. Russell.....	37	Dec. 22, 1909...	Ladderman.....	1533 S. Charles street....	Railroad brakeman.
Ferdinand Euler.....	24	Aug. 12, 1911...	Probationer.....	2025 E. Oliver street.....	Collector.

No. 2 HOOK AND LADDER COMPANY.—Located on Paca Street, near Fayette Street.
Organized April 1, 1859.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Frederick W. Johnston.	42	May 1, 1894...	Captain.....	2123 W. Lexington street..	Carpenter.
Charles L. Steinwedel.	43	March 8, 1897...	Lieutenant.....	336 Ramsay street.....	Laborer.
William C. Talbott....	30	Feb. 1, 1907...	Tillerman.....	835½ W. Lombard street.	Motorman.
William H. Close.....	27	Feb. 1, 1906...	Asst. Tillerman...	37 Gorman avenue.....	Clerk.
Frederick W. Wolff..	27	Jan. 1, 1908...	Hostler	1322 W. Lombard street...	Laborer.
Oscar W. Deaver.....	29	Jan. 1, 1908...	Asst. Hostler.....	1402 Harford avenue	Driver.
Henry J. Carle.....	41	March 1, 1895...	Ladderman.....	422 N. Poppleton street..	Electrotyper.
Thomas A. Heagerty..	32	July 1, 1907...	Ladderman.....	103 N. Fulton avenue.....	Seaman.
Joseph E. Watts.....	33	Nov. 19, 1903...	Ladderman.....	2242 W. Fayette street.....	Bricklayer.
Howard O. Ely.....	32	Nov. 5, 1910...	Ladderman.....	405 S. Duncan alley.....	Driver.
Charles A. Kennedy...	28	June 21, 1910...	Ladderman.....	208 Old Frederick road..	Motorman.
Albert Eckstein.....	27	Aug. 12, 1911...	Ladderman.....	2528 E. Oliver street.....	Meat cutter.
John M. Healy.....	31	Nov. 24, 1911...	Probationer.....	2617 W. Fairmount avenue.	Laborer.

No. 3 HOOK AND LADDER COMPANY.—Located on Ann Street, near Gough Street.
Organized January 1, 1871.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John J. Clancy	44	Oct. 1, 1897	Captain	2948 Harford road	Canmaker.
Peter Nelson	53	Jan. 3, 1890	Lieutenant	1719 N. Wolfe street	Seaman.
James F. Reilly	59	Nov. 13, 1874	Tillerman	1633 E. Lombard street	Painter.
Henry Binau	30	Jan. 15, 1905	Asst. Tillerman	2050 E. Federal street	Clothing cutter.
William Hastler	48	March 31, 1893	Hostler	1929 Fleet street	Hostler.
Charles Sommers	43	April 2, 1902	Asst. Hostler	402 S. Wolfe street	Railroader.
Peter J. McMahon	38	Nov. 30, 1900	Ladderman	2105 E. Lombard street	Laborer.
Adam J. Mechlinski	27	June 19, 1907	Ladderman	2500 Foster avenue	Ironworker.
Harry Peed	33	Nov. 16, 1907	Ladderman	1602 McElderry street	Laborer.
John W. Wittig	40	April 27, 1898	Ladderman	1746 Bank street	Laborer.
James C. McNamara	25	Aug. 8, 1910	Ladderman	307 S. Ann street	Hostler.
John J. Flynn	36	Aug. 1, 1909	Ladderman	2216 Bank street	Potter.

No. 4 HOOK AND LADDER COMPANY.—Located on McCulloh Street, near Preston Street.
Organized December 15, 1880.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Louis Herman	41	Oct. 1, 1897	Captain	1637 N. Washington street.	Machine hand.
William G. Schultz	38	May 20, 1896	Lieutenant	1130 McCulloh street	Boxmaker.
Frederick W. Stortz	41	Oct. 1, 1902	Tillerman	537 N. Kenwood avenue	Painter.
Louis E. Erdman	29	Nov. 1, 1906	Asst. Tillerman	1138 Harford avenue	Soldier.
Andrew J. Connelly	56	April 1, 1882	Hostler	930 N. Payson street	Driver.
George W. Michael	30	Aug. 5, 1903	Asst. Hostler	2919 Belmont avenue	Driver.
Henry C. Burgoyne	31	Nov. 16, 1907	Ladderman	627 W. Franklin street	Conductor.
Hugh J. Lavery	29	May 4, 1904	Ladderman	1042 Valley street	Horseshoer.
Charles E. Wood	31	Jan. 1, 1911	Ladderman	623 Columbia avenue	Motorman.
Charles C. Whitney	27	Sept. 26, 1907	Ladderman	2022 McCulloh street	Butcher.
Frederick C. Dietz	23	Jan. 1, 1911	Ladderman	908 Woodley street	Candymaker.
James S. Welch	39	Jan. 22, 1901	Ladderman	1118 McCulloh street	Clerk.

No. 5 HOOK AND LADDER COMPANY.—Located corner Harford Avenue and Oliver Street.
Organized April 6, 1887.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John L. Emerson	43	Jan. 18, 1892	Captain	1820 E. Lafayette avenue	Painter.
George Hanauer	38	Dec. 15, 1897	Lieutenant	136 N. Glover street	Tinner.
Joseph P. McGinn	34	March 15, 1906	Tillerman	1571 Carswell street	Clerk.
John F. Heins	39	Jan. 19, 1905	Asst. Tillerman	202 Abbottson street	Hardwood finisher.
William Quinn	61	April 1, 1887	Hostler	1034 N. Eden street	Driver.
Bertram W. Stansbury	32	Nov. 16, 1907	Asst. Hostler	1310 Aisquith street	Laborer.
John Sullivan	45	Dec. 8, 1890	Ladderman	1415 Harford avenue	Painter.
Robert E. L. Johns	48	Feb. 7, 1898	Ladderman	1752 E. North avenue	Carpenter.
Andrew L. Frederick	31	April 3, 1902	Ladderman	1815 Hope street	Clerk.
Charles E. Stuart	36	Aug. 1, 1909	Ladderman	1573 Carswell street	Mattressmaker.
John F. Bloberger	25	Feb. 22, 1908	Ladderman	1201 E. Federal street	Laborer.
Albert T. Cooper	24	April 16, 1910	Ladderman	1107 E. Hoffman street	Carpenter.

No. 6 HOOK AND LADDER COMPANY.—Located corner Hanover and Ostend Streets.
Organized April 6, 1888.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Paul Linde	44	Feb. 24, 1891	Captain	502 N. Gilmor street	Canmaker.
William Feeney	34	July 15, 1901	Lieutenant	1517 Riverside avenue	Boilermaker.
Wesley S. McClean	35	July 1, 1903	Tillerman	142 W. Cross street	Cabinetmaker.
Lewis E. Schleicher	34	Sept. 6, 1899	Asst. Tillerman	1522 S. Hanover street	Enameler.
Louis Matthaei	47	Nov. 12, 1901	Hostler	1405 Patapsco street	Driver.
William Leonard	59	Feb. 23, 1894	Asst. Hostler	1234 S. Eutaw street	Carpenter.
Thomas J. O'Byrne	33	Dec. 23, 1904	Ladderman	1042 William street	Ironworker.
John E. Mack	27	July 13, 1905	Ladderman	1336 E. Fort avenue	Fireman.
Asa Griffith	33	Nov. 17, 1904	Ladderman	111 W. Clement street	Conductor.
Frank J. Katzenberger	30	Aug. 8, 1910	Ladderman	1044 William street	Ship carpenter.
Orin K. Ragland	27	Nov. 5, 1910	Ladderman	1226 Hull street	Carpenter.
Charles E. Hughes	26	Sept. 11, 1910	Ladderman	1139 Sharp street	Laborer.
William J. Kronenberg	30	Aug. 12, 1911	Probationer	1625 Hanover street	Clerk.

No. 7 HOOK AND LADDER COMPANY.—Located on Greenmount Avenue, near Gorsuch Avenue.
Organized February 3, 1901.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Joseph J. Presley	44	Feb. 14, 1893	Lieutenant	2502 Druid Hill avenue	Car driver.
Howard R. Waite	36	June 7, 1901	Hostler	624 Malcolm lane	Painter.
John L. Thomas	43	June 1, 1892	Ladderman	442 Whitridge avenue	Blacksmith.
Richard S. Watkins	31	March 24, 1907	Ladderman	6 Independent street	Propertyman.
Frank P. McGarvey	34	Jan. 20, 1908	Ladderman	2458 Greenmount avenue	Clerk.
Robert N. Ison	41	Nov. 1, 1906	Ladderman	1141 Greenmount avenue	Laborer.
Michael J. Kram	49	Dec. 28, 1898	Ladderman	1420 E. Preston street	Cooper.
Joseph M. Ritmiller	25	Sept. 17, 1910	Ladderman	300 Carswell street	Dairyman.

No. 8 HOOK AND LADDER COMPANY.—Located on Frederick Road, Carroll.
Organized July 6, 1907.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Amos G. Bramble	44	March 1, 1895	Lieutenant	33 W. North avenue	Driver.
John A. Epp	49	Feb. 15, 1893	Hostler	434 Frederick road	Cabinetmaker.
Walter F. Musgrove	40	April 8, 1897	Ladderman	3 Cascara street	Ironmolder.
Robert B. McCall	28	Nov. 1, 1906	Ladderman	114 Collins avenue	Motorman.
Frank W. Smith	27	April 5, 1906	Ladderman	335 S. Smallwood street	Car inspector.
James E. Crandell	29	Aug. 1, 1909	Ladderman	501 N. Carey street	Carpenter.
Joseph H. Sewell	25	June 1, 1910	Ladderman	1618 W. Baltimore street	Boltheader.
William T. Webb	34	April 5, 1906	Ladderman	4 Kingsley street	Conductor.

No. 9 HOOK AND LADDER COMPANY.—Located corner Roland and Union Avenues.
Organized May 4, 1898.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
George W. Haskell....	66	May 22, 1876...	Lieutenant.....	1320 N. Bond street.....	Carpenter.
George W. Ewig.....	27	April 16, 1910...	Hostler	529 Thirty-sixth street ..	Wood finisher.
F. C. H. Berger.....	55	April 3, 1888...	Ladderman.....	853 Wellington street	Silversmith.
William H. Cuddy...	54	June 29, 1888...	Ladderman.....	1515 E. Madison street.....	Driver.
Charles K. Childress.	25	March 16, 1908...	Ladderman.....	818 Wellington street	Mariner.
Henry H. Kaiss.....	26	May 16, 1908...	Ladderman.....	230 Hickory avenue.....	Machinist.
Nelson R. Coleman...	30	July 21, 1908...	Ladderman.....	4018 Hickory avenue.....	Railroad fireman.
Laurence E. Williams.	26	March 16, 1908...	Ladderman.....	255 Roland avenue	Salesman.

No. 10 HOOK AND LADDER COMPANY.—Located on Lafayette Avenue, 1 car Stricker Street.
Organized March 17, 1895.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation
George F. Kennard..	45	Sept. 5, 1891...	Captain.....	1810 Rosedale street.....	Clerk.
Henry C. Kabernagel.	52	April 13, 1896...	Lieutenant.....	1418 W. Lafayette avenue..	Rigger.
James B. Kelley.....	54	April 1, 1887...	Tillerman.....	1928 W. Lafayette avenue.	Driver.
Frederick Grauling....	47	Dec. 26, 1892...	Asst. Tillerman...	2031 E. Fleet street.....	Oil refiner.
Gustavus C. Raabe....	49	Sept. 6, 1899...	Hostler	1229 N. Gilmor street.....	Driver.
Thomas Montgomery.	69	April 1, 1870...	Asst. Hostler.....	121 N. Paca street.....	Driver.
August Ott.....	35	April 1, 1907...	Asst. Hostler.....	1930 Montrose street.....	Clerk.
William S. Fort.....	43	Feb. 7, 1898...	Ladderman.....	501 N. Monroe street.....	Painter.
George W. Weber....	26	July 1, 1907...	Ladderman.....	547 S. Fulton avenue.....	Machinist.
Harry H. Gay.....	28	Sept. 1, 1907...	Ladderman.....	53 Garrison lane.....	Ironmolder.
Eugene H. Maihl.....	42	May 3, 1905...	Ladderman.....	822 N. Stricker street.....	Steamfitter.
John H. Morgenweck.	32	April 16, 1908...	Ladderman.....	1118 N. Gilmor street.....	Railroad fireman.
Herbert Bitzel.....	24	Oct. 23, 1909...	Ladderman.....	2531 Salem street.....	Motorman.

No. 11 HOOK AND LADDER COMPANY.—Located corner North Avenue and McMechen Street.
Organized October 8, 1898.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Thomas J. Strahler...	52	Dec. 10, 1881...	Captain.....	1320 Ensor street	Tinner.
Robert T. Creamer....	44	March 9, 1897...	Lieutenant.....	1507 N. Dallas street.....	Carpenter.
George E. Fornwalt...	42	Jan. 17, 1897...	Tillerman.....	1716 John street.....	Fireman.
George T. Evans, Jr..	35	July 27, 1898...	Asst. Tillerman...	2305 N. Charles street.....	Upholster.
Charles L. Wain.....	43	Dec. 9, 1897...	Hostler	2125 Madison avenue.....	Driver.
James E. Doyle.....	42	March 21, 1905...	Asst. Hostler.....	2729 Huntingdon avenue..	Laborer.
Henry Heinze.....	45	Aug. 1, 1898...	Ladderman.....	2135 N. Fulton avenue....	Clerk.
Lawrence Blake.....	64	April 1, 1871...	Ladderman.....	1543 Aisquith street	Painter.
John W. Riggin.....	30	Nov. 13, 1909...	Ladderman.....	720 N. Appleton street...	Mariner.
George W. Reinhardt.	36	Feb. 20, 1899...	Ladderman.....	113 W. Twenty-third street	Salesman.
Guy W. Clark.....	28	Aug. 8, 1910...	Ladderman.....	7 E. Cross street.....	Painter.
William H. Wetzel...	28	March 19, 1910...	Ladderman.....	1612 E. Hoffman street....	Roofer.
Otto Boises.....	23	Aug. 12, 1911...	Probationer.....	121 Calvert road	Hairworker.

No. 12 HOOK AND LADDER COMPANY.—Located corner Garrison and Liberty Heights Avenues.
Organized September 17, 1907.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
James K. Merriken...	49	Aug. 1, 1888...	Lieutenant.....	3107 W. North avenue....	Driver.
Benjamin F. Seipp....	34	June 22, 1900...	Hostler	1613 Laurens street.....	Blacksmith.
Charles M. Johannes..	45	April 25, 1895...	Ladderman.....	3013 Westwood avenue....	Stonecutter.
Hugh P. Fox.....	52	July 8, 1892...	Ladderman.....	1807 Liberty road.....	Blacksmith.
Samuel W. Marker...	61	April 15, 1880...	Ladderman.....	3022 W. North avenue....	Carpenter.
Joseph G. Berger.....	51	March 3, 1897...	Ladderman.....	1722 Warwick avenue.....	Driver.
Raymond H. Lyeth...	26	Sept. 25, 1909...	Ladderman.....	1121 N. Monroe street....	Car builder.
Henry Meyers.....	30	Oct. 23, 1909...	Ladderman.....	1613 N. Fulton avenue....	Watchman.

No. 13 HOOK AND LADDER COMPANY.—Located on Carey Street, near Lombard Street.
Organized December 19, 1907.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Charles E. Rice	42	April 15, 1893	Captain	1946 W. Lafayette avenue	Packer.
George U. McFadden	43	May 10, 1892	Lieutenant	3242 Cedar avenue	Carpenter.
John L. Durham	47	May 5, 1889	Tillerman	203 Millington lane	Plumber.
William T. Hughes	46	Feb. 4, 1898	Asst. Tillerman	1803 N. Fulton avenue	Stonecutter.
Charles Sapp	50	Feb. 14, 1893	Hostler	1418 W. Pratt street	Driver.
George W. Heitmiller	31	Nov. 16, 1906	Asst. Hostler	1118 W. Fayette street	Laborer.
James McGee	55	Sept. 27, 1897	Ladderman	1108 W. Lombard street	Driver.
William J. Hunt	31	Mar. 20, 1906	Ladderman	1272 Battery avenue	Clerk.
Charles H. DeFalco	36	Mar. 20, 1906	Ladderman	1438 Boyle street	Laborer.
Joseph H. Potter	27	June 7, 1907	Ladderman	893 Ramsay street	Boilermaker.
William Hartwig	44	Nov. 30, 1900	Ladderman	1019 S. Charles street	Tinner.
Walter L. Christopher	37	Aug. 1, 1909	Ladderman	2580 W. Fayette street	Millworker.

No. 14 HOOK AND LADDER COMPANY.—Located on Gorsuch Avenue, near Harford Road.
Organized September 10, 1906.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Robert H. Dougherty	52	Jan. 12, 1889	Lieutenant	1821 Guilford avenue	Undertaker.
Ambrose Spangler	46	Nov. 26, 1895	Hostler	47 Gorsuch avenue	Driver.
Martin Kirby	67	Feb. 1, 1883	Ladderman	37 Gorsuch avenue	Trunkmaker.
John R. Houck	36	Aug. 24, 1905	Ladderman	1575 Carswell street	Tinner.
George F. Liedlich	27	Jan. 1, 1907	Ladderman	2016 E. Lafayette avenue	Baker.
John I. Blessing	37	Jan. 1, 1907	Ladderman	1809 Rutland avenue	Mattress maker.
Gustav A. Wetzel	35	Jan. 1, 1911	Ladderman	1504 E. Lafayette avenue	Railroad brakeman.
Donald H. Cunningham	24	Feb. 7, 1911	Ladderman	220 Carswell street	Driver.

No. 15 HOOK AND LADDER COMPANY.—Located corner Montford Avenue and Mura Street.
Organized May 12, 1908.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Emil Heise	52	March 1, 1890	Captain	926 N. Collington avenue.	Furniture packer.
Frederick N. Duke	45	June 16, 1899	Lieutenant	12 N. Milton avenue	Copper smelter.
Joseph M. Diggs	44	May 30, 1896	Tillerman	2231 Gough street	Ironmolder.
Michael J. Farley	49	April 26, 1889	Asst. Tillerman	2328 E. Preston street	Driver.
Frank Doerer	46	March 5, 1895	Hostler	2123 E. Preston street	Driver.
William Lohnes	39	Jan. 1, 1907	Asst. Hostler	2006 E. Madison street	Driver.
John W. Killmond	41	June 7, 1907	Ladderman	1514 E. Oliver street	Watchman.
William M. Pierce	36	June 2, 1908	Ladderman	2414 Orleans street	Painter.
Harry Meyers	27	Jan. 20, 1908	Ladderman	1616 E. Eager street	Pipefitter.
John L. Kurz	26	Aug. 7, 1907	Ladderman	417 N. Patterson Park ave.	Clerk.
Pemberton Warmsley	41	March 7, 1907	Ladderman	616 N. Collington avenue.	Laborer.
Adam G. Reinhardt	26	Aug. 15, 1909	Ladderman	1223 N. Bradford street	Potter.

No. 16 HOOK AND LADDER COMPANY.—Located corner Calvert and Read Streets.
Organized January 1, 1908.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
James P. Lyons	39	March 1, 1895	Captain	412 N. Milton avenue	Horseshoer.
Frank A. Hansson	43	Dec. 12, 1892	Lieutenant	2125 Huntingdon avenue	Blacksmith.
Edward B. Beach	33	Jan. 21, 1904	Tillerman	2122 E. North avenue	Upholsterer.
Joseph McGuirk	34	Nov. 1, 1906	Asst. Tillerman	623 N. Mount street	Clerk.
John B. Doering	27	Nov. 16, 1907	Hostler	601 E. Biddle street	Driver.
William K. White	39	Sept. 8, 1905	Asst. Hostler	113 N. Schroeder street	Driver.
Albert F. Gambrell	26	Oct. 15, 1909	Ladderman	2405 E. Fayette street	Lineman.
Michael J. Higgins	38	July 1, 1907	Ladderman	713 N. Calvert street	Plumber.
James W. Guidice	30	Aug. 1, 1909	Ladderman	55 Abbottson street	Barber.
Clarence Smith	25	Jan. 1, 1911	Ladderman	1210 Guilford avenue	Conductor.
John Fairley	23	Feb. 7, 1911	Ladderman	2313 E. Fleet street	Driver.
Charles J. Cain	26	Feb. 21, 1908	Ladderman	808 N. Gilmor street	Motorman.

No. 17 HOOK AND LADDER COMPANY.—Located corner Linwood Avenue and O'Donnell Street.
Organized December 31, 1907.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John Grasmick.....	37	Dec. 24, 1896...	Captain.....	2617 Fairmount avenue....	Carpenter.
Christian H. Fitzberger	41	March 1, 1895...	Lieutenant.....	2909 E. Baltimore street...	China packer.
John I. Buck.....	42	Dec. 12, 1896...	Tillerman.....	1319 N. Milton avenue....	Bricklayer.
Joseph E. Haskell....	31	July 1, 1903...	Asst. Tillerman...	1746 E. North avenue.....	Woodcarver.
Michael L. Waldhauser	38	Jan. 1, 1908...	Hostler	913 S. Streeper street.....	Driver.
John Roppelt.....	31	Feb. 1, 1906...	Asst. Hostler.....	249 S. Washington street..	Salesman.
Leonard D. Hendricks.	30	April 6, 1906...	Ladderman.....	3133 Eastern avenue.....	Laborer.
John J. Doyle.....	25	Jan. 1, 1908...	Ladderman.....	1020 S. Kenwood avenue..	Driver.
William J. Erlbeck....	38	Jan. 1, 1908...	Ladderman.....	514 S. Montford avenue...	Manager.
Harry Burk.....	31	Feb. 1, 1906...	Ladderman.....	2419 Eastern avenue.....	Carpenter.
Harry J. Lassen.....	28	Aug. 1, 1909...	Ladderman.....	2211 Eastern avenue.....	Ironmolder.
Frank M. Fisher.....	24	Sept. 11, 1910...	Ladderman.....	134 N. Collington avenue.	Pipefitter.

HIGH PRESSURE SERVICE PUMPING STATION.—Located on South Street, near Pratt Street.
Organized August 8, 1910.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
William F. Fitzgerald.	44	Jan. 15, 1905...	Engineman	1445 Riverside avenue.....	Machinist.
Walter L. Carter.....	33	Jan. 1, 1908...	Asst. Engineman.	1733 Clarkson street.....	Engineer.
Harry M. Efford.....	25	July 1, 1909...	Asst. Engineman.	230 N. Luzerne street.....	Marine engineer.
Eugene Enderle.....	29	July 6, 1905...	Asst. Engineman.	1704 Ruxton street.....	Enginer.
George Lohman.....	24	Aug. 8, 1910...	Stoker	222 N. Patterson Park av.	Barber.
Alonzo Nickum.....	42	Feb. 23, 1900...	Stoker	1815 E. Madison street....	Bricklayer.
Benjamin J. Yichter..	28	Feb. 7, 1911...	Stoker	2440 Foster avenue.....	Printer.
William B. Pitt.....	30	June 11, 1911...	Stoker	3 E. Henrietta street...	Moulding machine operator.

No. 1 WATER TOWER COMPANY.—Located on Lombard Street, between Howard and Eutaw Streets.
Organized June 1, 1891.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
John G. Rahe	34	May 4, 1904	Lieutenant	212 Collins avenue	Clerk.
John A. Lang	26	Jan. 1, 1909	Hostler	1145 Hamburg street	Boilermaker's helper.
Henry Hecker	28	Jan. 20, 1908	Pipeman	1019 S. Sharp street	Driver.
Louis L. Waldhauser	27	Aug. 15, 1909	Pipeman	760 Frederick avenue	Driver.

No. 2 WATER TOWER COMPANY.—Located on Gay Street, between Baltimore and Water Streets.
Organized October 2, 1909.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
Bankard B. Guthrie	38	June 22, 1900	Lieutenant	413 N. Chester street	Plasterer.
Andrew Heselbach	40	Feb. 21, 1908	Hostler	603 S. Bradford street	Driver.
George Young	37	March 16, 1908	Pipeman	2410 Jefferson street	Woodworker.
John Schmidt	28	Jan. 1, 1909	Pipeman	104 N. Curley street	Driver.

REPORT

OF THE

Superintendent of Fire-Alarm Telegraph

1911

REPORT

BALTIMORE, January 1, 1912.

To the Honorable Board of Fire Commissioners:

GENTLEMEN—I have the honor to submit the annual report of the operation of the Fire Alarm Telegraph Department for the year ending December 31, 1911.

The efficiency of the Telegraph Department has been maintained at the high standard which has been its record for some years.

A few minor derangements of machinery have been discovered, but in only one instance did a box pulled, fail to record its signal.

The daily record includes all errors in street boxes and engine-house equipment, the number—when compared with the regular service and tests—being so small that conditions may be regarded as nearly perfect.

Nine hundred and twenty-eight alarms were received from street boxes during the year. In addition, monthly tests from each of the 689 boxes give a total of 9,196 signals from street boxes. The test of alarm circuits adds their signals daily to each engine-house gong, aggregating 6,285 signals. The errors, meaning missing or double blows, fault in machinery, traced and located, amount to ten on box circuits eighty-one in engine-houses and includes every item reported.

The outside work done during the year covered the installation of signal and telephone service for the High Pressure System, changing from poles to underground on Garrison avenue, between Clifton avenue and No. 12 Truck Company, and extension of box circuits on Edmondson avenue to city limits.

Forty-five thousand feet of No. 4 conductor and 1,800 feet of No. 20 conductor lead-covered cables was laid for the High Pressure Service equipment. Twenty thousand feet No. 2 conductor, 1,500 feet No. 10 conductor, 100 feet No. 13 conductor, 500 feet No. 20 conductor lead-covered cable and 10,500 feet circular loom cable was used for installation of new boxes and repairs.

Seven thousand one hundred feet 1½-inch iron pipe was laid in lateral extension of the underground system for connections with new boxes.

The extension of the underground equipment enabled the Department to dispose of 107 poles to commercial interests formerly occupying space by consent of the Board of Fire Commissioners, the transfer relieving the Department from the expense of maintenance and adding slight revenue to the city from pole licenses.

Fourteen poles were taken down and eight reset. Seventy-one 10-pin and ten 6-pin cross-arms were used in repairs. The usual work of trimming trees and other attention to overhead lines has kept circuits comparatively free from interruption during rainy weather.

Twenty-three new boxes were installed as follows:

126 Market Place and Water street.
131 East Falls avenue and Fawn street.
1529 Bank and Spring streets.
1822 Windsor and Boston streets.
3221 Franklin street and Park avenue.
3229 Druid Hill and Lafayette avenues.
3423 Maryland and Mount Royal avenues.
3623 Franklin and Brune streets.
465 Carey and McHenry streets.
476 Saratoga and Mount streets.
539 Bayard and Glydon streets.
7223 Augusta and Connecticut avenues.
7424 Edmondson avenue and Thirteenth street.
7426 Edmondson avenue and Nineteenth street.
8128 Carswell and Kennedy streets.
8524 Maryland avenue and Twenty-eighth street.

8528 Boulevard and Cedar avenue.
8529 Ducatel street and Brookfield avenue.
8926 Bateman avenue and Twelfth street.
8927 Windsor Mill road and Elsinor avenue.
10-1-2-2 Empire Theatre, Fayette street, near Eutaw.
10-1-2-3 Ford's Opera House, Fayette street, near Eutaw.
10-2-6 Rennous Kleinle & Co., Frederick road.

Others are ready for installation as soon as the necessary work for underground connections are completed by the Electrical Commission.

Cable has been ordered for the Harford and Frederick avenues trunk lines and for some lateral connections in South Baltimore. This extension of the underground circuits will materially improve the Fire Alarm service, as several of the loops leading to the suburbs being removed from poles, storms in those sections will not cause interruption to the circuits with which boxes serving the more congested sections are connected.

The value of underground lines has been fully demonstrated in practice.

The regular tests with volt and ammeters show the improved electrical conditions in damp and rainy weather. The cost of maintenance is reduced without increasing the number of linemen. More time is provided for careful inspection of equipment and for adjustments and repairs of machinery, notwithstanding the increase in number of engine-houses and new boxes.

With your approval the practice of extending the underground service will be continued in the interest of economy and improved service.

With acknowledgements for your generous encouragement of my efforts to keep the Fire Alarm Telegraph in a conspicuous position as regards its value to the Department, I am

Very respectfully,

JAMES B. YEAKLE,
Superintendent of Fire Alarm Telegraph.

ROSTER

OF THE

TELEGRAPH DEPARTMENT

1911

ROSTER OF TELEGRAPH DEPARTMENT.

Name.	Age.	Date of Appointment.	Position.	Residence.	Former Occupation.
James B. Yeakle.....	69	June 1, 1902...	Superintendent....	3712 Forest Park avenue..	Gen. Manager American Dist. Tel. Co.
Charles C. Prince.....	47	Jan. 1, 1884...	Telegraph operator	2318 E. Baltimore street...	Telegraph operator.
William E. Shuter.....	41	April 1, 1896...	Telegraph operator	Guilford Apartments.....	Telegraph operator.
Harry C. Martin.....	44	June 1, 1896...	Telegraph operator	43 S. Stricker street....	Telegraph operator.
William F. Gettrust...	37	Sept. 8, 1897...	Telegraph operator	2303 W. North avenue....	Telegraph operator.
Sidney E. Smith.....	42	March 11, 1899...	Telegraph operator	2324 Guilford avenue	Telegraph operator.
Michael J. Dean.....	43	March 15, 1902...	Telegraph operator	800 Cator avenue.....	Telegraph operator.
Andrew L. Black.....	38	April 24, 1911...	Telephone oper'tor	1318 E. Lafayette avenue..	Telephone installer.
John J. Eagan.....	30	July 26, 1910...	Telephone oper'tor	1217 S. Charles street.....	Clerk.
Jerome V. Pippitone..	28	July 26, 1910...	Telephone oper'tor	2421 McCulloh street.....	Bookkeeper.
Richard F. Curtis.....	22	Aug. 10, 1911...	Telephone oper'tor	1219 W. Fayette street....	Bookkeeper.
James N. Smith.....	50	Feb. 28, 1897...	Lineman	1511 N. Bond street.....	Lineman.
Thomas W. Glass.....	47	May 15, 1893...	Assistant lineman.	1819 N. Bond street.....	Lineman.
Nicholas C. Wolfe....	59	Aug. 4, 1898...	Assistant lineman.	1116 Mosher street.....	Lineman.
Joseph F. Borgmeier..	44	Jan. 1, 1908...	Assistant lineman.	1607 E. Lafayette avenue..	Lineman.
Louis B. Bryant.....	38	Sept. 1, 1911...	Assistant lineman	613 E. Thirty-eighth street.	Lineman.
Frank L. Freeze.....	33	March 5, 1903...	Batteryman.....	1526 John street.....	Telephone operator.

SEVENTEENTH ANNUAL REPORT

OF THE

Free Public Bath Commission

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

Free Public Bath Commission of Baltimore

(Instituted by Ordinance of the City Council, May 9, 1900.)

PRESENT COMMISSION APPOINTED OCTOBER 2, 1911.

Chairman

EUGENE LEVERING.

Vice-Chairman and Treasurer

WILLIAM H. MORRISS.

MARY SHERWOOD, M. D.
JOS. E. GICHNER, M. D.
WM. A. EISENBRANDT.
OREGON MILTON DENNIS.
H. ROSS COPPAGE, D. D. S.

Secretary and Superintendent

THOS. M. BEADENKOFF.

STANDING COMMITTEES

Walters Baths No. 1

WM. A. EISENBRANDT.
MARY SHERWOOD, M. D.
OREGON MILTON DENNIS.

Walters Baths No. 2

JOS. E. GICHNER, M. D.
MARY SHERWOOD, M. D.
H. ROSS COPPAGE, D. D. S.

Walters Baths No. 3

MARY SHERWOOD, M. D.
JOS. E. GICHNER, M. D.
OREGON MILTON DENNIS.

Walters Baths No. 4

OREGON MILTON DENNIS.
WM. A. EISENBRANDT.
MARY SHERWOOD, M. D.

Patterson Park Field House and Pool

WM. A. EISENBRANDT.
OREGON MILTON DENNIS.
MARY SHERWOOD, M. D.

Greenmount Avenue Baths

H. ROSS COPPAGE, D. D. S.
MARY SHERWOOD, M. D.
JOS. E. GICHNER, M. D.

West Park Recreation House, Hampden

MARY SHERWOOD, M. D.
OREGON MILTON DENNIS.
WM. A. EISENBRANDT.

Portable Baths

OREGON MILTON DENNIS.
WM. A. EISENBRANDT.
JOS. E. GICHNER, M. D.
MARY SHERWOOD, M. D.

Public Comfort Station

JOS. E. GICHNER, M. D.
MARY SHERWOOD, M. D.
H. ROSS COPPAGE, D. D. S.

Winans' Beach

OREGON MILTON DENNIS.
WM. A. EISENBRANDT.

Gwynn's Falls

JOS. E. GICHNER, M. D.

Locust Point

MARY SHERWOOD, M. D.

The Chairman and Vice-Chairman are ex-officio members of all committees.

FINANCIAL STATEMENT, 1911.

Expenditures.

Administration and office salaries	$2,607 60	
Relief Engineers' salaries	2,008 24	
Administration and office expenses	720 24	
		$5,336 08
Salaries and expenses Walters Baths No. 1		10,681 40
Salaries and expenses Walters Baths No. 2		6,357 74
Salaries and expenses Walters Baths No. 3		4,333 76
Salaries and expenses Walters Baths No. 4		7,888 69
Salaries and expenses Men's Outdoor Baths		3,963 86
Salaries and expenses Women's Outdoor Baths		1,281 79
Salaries and expenses Patterson Park Field House		10,092 62
Salaries and expenses Public Comfort Station		3,605 27
Salaries and expenses Portable Shower Baths		3,193 50
Salaries and expenses Hampden-Woodberry House		2,361 20
Repair work during winter		1,347 91
Swimming instruction		300 08
		$60,743 90

Receipts.

Walters Baths No. 1, Baths and Laundry	$7,023 04	
Walters Baths No. 2, Baths and Laundry	3,369 86	
Walters Baths No. 3, Baths and Laundry	1,352 58	
Walters Baths No. 4, Baths and Laundry	1,139 21	
Outdoor Baths, Men's and Women's	1,009 22	
Patterson Park Baths	1,780 05	
Public Comfort Station	745 67	
Portable Baths	348 44	
Hampden-Woodberry House	167 99	
Sale of old material	76 50	
		17,012 56
Net expenses		$43,731 34

SEVENTEENTH ANNUAL REPORT

OF THE

FREE PUBLIC BATH COMMISSION.

BALTIMORE, January 1, 1912.

Hon. JAMES H. PRESTON,
Mayor of Baltimore City.

DEAR SIR:

In our Report for 1910 the Commission called attention to the close relation existing between bathing and public health. It is with pleasure that we incorporate in our report for this year the comprehensive statement of this relation as made in the circular letter just published proposing an International Conference for Popular Baths and School Baths, to be held at The Hague in August, 1912.

"Originally the starting point of Popular Bathing was the promotion of hygiene generally and cultivation of cleanliness; of late years, however, science has taught us that there is no more efficient means to guard against infectious diseases and to prevent their progress than bathing.

"The researches into the origin of the plague, recurrent fever and spotted typhus have shown that vermin plays an important part in the spreading of these diseases.

"Cleanliness is a measure of the highest importance. Localization and disinfection have their value in the struggle against epidemics, but cleanliness is the principal factor."

STEADY GROWTH OF THE BALTIMORE BATHS.

Each year since 1900 has shown an advance in the sanitary and cleansing work maintained by our city in the Public Bath Department, but no year has shown so large an increase of patrons as the one just closed.

The patronage at the various bathing stations advanced from 757,000 in 1910 to 891,000 in 1911, showing an increase of 134,000 for the year, and a daily average of 2,500 patrons throughout the year.

The number of bathing stations was increased during the year to 14. Two new buildings were opened during the year—they are: The Waters Bath No. 4, at West and Marshall streets, and the West Park Recreation House, at Hampden.

CLEANSING AND RECREATIONAL BATHS.

As usual the patronage of the cleansing baths largely predominates over that of the recreational baths. The seven all-the-year-round cleansing baths show for the year 600,000, while the summer swimming baths in the parks and harbor had 291,000 patrons.

PUBLIC COMFORT STATIONS.

The Public Comfort Station at Market Place and Lombard street continues its large record of attendance, showing 401,000 for the entire year, a daily average of 1,100.

PORTABLE BATHS.

Among the most interesting features of the year past is the large increase of patrons at the four Portable Bath Houses, located on the streets in the most congested residential sections; 73,548 persons used the bathing facilities in these small structures, as compared with 52,000 in the previous year.

This success justifies the experiment of keeping open these stations all the year instead of only during the summer months, as heretofore.

Following is a summary of patronage for 1911:

Walters Baths No. 1—131–133 S. High St.	263,700
Walters Baths No. 2—900–902 Columbia Ave.	111,388
Walters Baths No. 3—1018–1022 Argyle Ave.	33,518
Walters Baths No. 4—West and Marshall Sts. (8½ months).	67,522
West Park Recreation Centre, Hampden (7 months).	24,783
Patterson Park Showers and Lockers.	49,743
Patterson Park Swimming Pool.	121,528
Four Portable Baths—various localities.	73,548
Four Swimming Baths—outdoors.	145,283
Total Bath Patrons.	891,013
Patrons Public Comfort Station.	400,903
Grand total.	1,291,916

In addition to these facts connected with patronage, the Commission are glad to report several improvements in their work, which make for better sanitation.

PUBLIC DRINKING CUPS ABOLISHED.

In line with modern sanitary science, the Bath Commission have during the past year taken steps to abolish the use of public combs, and towels and drinking cups. Cheap compressed paper combs have been provided; these are sold for one cent each, and 7,000 have thus far been used by patrons of the baths.

At the Public Comfort Station and the Walters Public Baths bubble fountains have been installed, which replace the drinking cups formerly in use.

BALTIMORE BATHS MANAGEMENT A MODEL.

The Bath Commission believe that their attention to cleanliness and systematic management of the bath houses has given our city a reputation in this department of which she may be proud.

Inquiries continue to come from many places asking for information as to our system of construction and management of the baths. During the past year requests have come from Davenport, Iowa; Savannah, Ga.; Toronto, Canada; and an appreciative letter about Portable Baths from Dr. Hume, of Yale College, Changsha, China.

CANTON BATHS CLOSED.

Two important changes in our system of summer swimming baths during the year, are to be noted. The bathing shore at Canton, which was originally opened to the public in 1893, whose use was generously given to the Bath Commission by the Consolidated Gas Electric Light and Power Co., and which served half a million bathers, was recently sold by the owners to the Standard Oil Co. It will be used as a shipping dock by that company.

No suitable piece of harbor frontage can be found in the neighborhood as a substitute, and this fact serves to emphasize the recommendation of our Commission, that the city establish more swimming pools in public parks, where pure water can be supplied, and under more congenial surroundings than in the public harbor.

NEW SWIMMING POOL AT GWYNNS.

A similar change has been made at Gwynns Falls Swimming Baths, one of the original outdoor swimming stations established 16 or 18 years ago. The water there has become each year more and more polluted, and is now unfit for bathing.

The Board of Estimates recently appropriated $3,000 for the construction of a swimming pool near the Gwynns Falls Baths, and by the kind co-operation of the Board of Park Commissioners, a suitable site has been selected in the new park addition near Wilkens avenue.

It is expected to have this pool excavated there, supplied with water from the city mains, and properly equipped with lockers and dressing rooms, so as to accommodate the largely increasing number of patrons from West Baltimore. During the season of 1911 about 25,000 used the baths there, but the proposed pool will be obliged to accommodate more.

WEST PARK RECREATION CENTRE.

On June 17 the baths in this recreation house were opened to the public, and during the six months since their opening 24,783 persons have used them. The baths, under our management, here form one part of the facilities of this fine recreation centre. The house was built at an expense of $30,000, raised partly by private benevolence and in part by municipal appropriation.

The baths are under the control of our Commission, and their managemant is in co-operation with the general plans and purposes of the recreation house. The house embraces a large gymnasium, reading and game rooms, and an auditorium for public meetings.

The general management of the house is in charge of the Hampden-Woodberry Neighborhood Association, and by co-operation with them the Bath Commission keeps the bathing facilities in service day and night, so as to be both a convenience to the public and also to the various gymnasium classes, athletic teams and participants in field sports, who find the baths a necessary feature of the house equipment.

PUBLIC SCHOOL BATHS.

Baths in public schools have been frequently urged by our Commission, and we are glad to report that during the past year the School Board have included in their building plans for one of the new schools, a scheme for baths for the pupils. Public School No. 6, on Ann street and Canton avenue, is to

be thus equipped, and we believe that the baths there will serve a valuable purpose in the hygiene and cleanliness of the pupils.

From no school where they have been installed have they ever been taken out. The Commission are glad to report that in proximity to several large schools, our Commission have in operation permanent or portable baths, and by permission of the School Board, bath tickets for the pupils have been distributed in the schools. In a single school 2,000 of these tickets have been used, and the principal has made a request for more admission cards. In all, probably 6,000 or 8,000 pupils have come directly from various public or parochial schools to use facilities at the baths during the past year. Our Commission desire to co-operate with the school management in offering freely the use of the bath houses to all pupils. The Commission desire also to express its approval of the suggestions made in the recent "City-Wide-Congress" for the installation of bathing facilities in all public schools.

We submit herewith details of the work at the various baths during the year.

WALTERS BATH NO. 1.

This house, the first of Mr. Walters' benevolences for our bathing system, continues its leadership in patronage and valuable service to the public.

Its number of bathers was for the year 263,700; this number is apparently, but not actually, a decrease as compared with 1910. During 1911 a new and more accurate method of accounting was installed, and the increase in fees of $154.63 shows an increase of about 8,000 over the number for 1910.

One unexpected development of the patronage here is the large use of the laundry by men. This is a sort of a by-product of the house's activities, but in the last year so many men have applied, that the use of the laundry is now given them four days a week. At times in a single day over 100 men

have thus used the laundry. These laundry patrons are of course from the humblest classes; oyster dredgers frequently come in groups from their boats; besides these are the homeless and unfortunate, quite often a cripple, who must lean on his crutches at the laundry tub to wash his clothes.

To all these the opportunity to wash their few belongings, a suit of underwear, and a pair of stockings, and a handkerchief or two is a godsend, and the attendance of 5,641 such patrons in 1911 shows their appreciation of it.

WALTERS BATHS NO. 2.

The work at this house on Columbia avenue has been successful during the past year. The laundry shows an increase of 115 over its patronage for 1910. On certain busy days here, the accommodations for bathers are insufficient, and we expect to instal during this year auxiliary shower baths to accommodate this demand.

A large number of students from various medical and other colleges are patrons here, and express great appreciation of the conveniences.

WALTERS BATHS NO. 3.

This house, used exclusively by colored people, shows increases in both bathing and laundry departments—about 500 in all over the figures for 1910. Twenty-four hundred and ninety-three persons also used the colored Portable Bath House on Cross street, near Race street, during the eight weeks of its continuance there. Those who are acquainted with the conditions in which many of the 85,000 or 90,000 colored people of our city live, appreciate the significance of these 36,000 patrons of the Public Baths.

WALTERS BATHS NO. 4—WEST AND MARSHALL STREETS.

This new house, complete and ready for service to the public, was formally transferred to the city on April 12 by Mr. Levering and Mr. Morriss, representing Mr. Walters,

and it was accepted by Mayor Mahool in a fitting speech. Addresses were also made by members of the Bath Commission and other municipal officials. The house was opened to the public on April 15, and in the eight and a half months following to December 31, it had a patronage of 67,241, of whom 27,898 were adults.

The laundry department is taxed already to accommodate its patrons, and indications point to a large patronage at this new house, as it is situated in an old settled section, where the homes are poorly supplied with bathing facilities.

GREENMOUNT AVENUE PUBLIC BATHS AND PUBLIC COMFORT STATION.

After two years' delay in the final settlement of the location, cost of construction, etc., the Bath House and Public Comfort Station at Greenmount and Harford avenues and Monument street are now in course of construction. The Board of Estimates granted the Bath Commission the balance asked for—$23,000—in order to properly complete the building, and later the Board of Estimates decided that the Public Bath Commission should include also in their plans a Public Comfort Station to serve the neighborhood of Belair Market.

It is expected that the new building, including both the Public Baths and the Public Comfort Station, will be complete by July 1, 1912. A small Portable Bath House erected at the site of the new building has had 12,000 patrons since July last, and this indicates that the neighborhood is in need of public bathing facilities now being provided.

PATTERSON PARK FIELD HOUSE AND SWIMMING POOL.

During the past year about 175,000 persons have used the swimming pool, shower baths and lockers at this great recreation centre. At public swimming games or spectacles, like the Fourth of July, 12th of September, and other celebrations,

15,000 or 20,000 spectators have gathered around the amphitheatre in which the swimming pool is situated, so that it may be said that the establishment here is the centre of a people's playground for the young and old.

Under the efficient management of Mr. Chas. R. Jones, Patterson Park Superintendent, the athletic and recreative features of the park have been developed so that around the field house have centered all sorts of athletic meetings—baseball, football, soccer, swimming, playground games for boys and girls, public athletic meetings, municipal games and races.

Probably during the coming season the bathing facilities here will be even more largely patronized, because of the closing of the baths heretofore maintained at Canton.

THE OUTDOOR BATHS.

At these four summer swimming baths—three of which are located on the harbor—145,283 men and boys, women and girls have bathed during the past year. Your Commission has often mentioned the polluted water of the harbor as unsanitary, but we continue to maintain the harbor baths, because they really represent safety and protection for those who habitually bathe in the harbor, and doubtless many drownings are prevented by the watchfulness and oversight of our guards.

During the coming season two of the original bathing stations, established in 1893, will be abandoned. One is at Canton, where the beach has been sold, and in place of it we expect to establish in the neighborhood a portable bath house. The second is the Gwynns Falls' Pool, where the water is too polluted to further continue bathing. It is hoped to have in operation the new swimming pool, near Frederick Road, supplied with city water, for the coming bathing season.

Winans Beach has the largest attendance of any of the harbor baths. This shore commands a beautiful view of the

Patapsco River as far as Sparrows Point, and the Commission are glad to learn that a movement is on foot to select in this vicinity ground for a riverside park.

PUBLIC COMFORT STATION.

This establishment has proven its sanitary value to our city by accommodating 401,000 patrons during the past year, besides 200,000 persons who used the drinking fountains maintained on the street there. The Commission appreciate the compliment paid its system of management in the fact that the Johns Hopkins Medical School has adopted as most convenient and sanitary the towel-delivery system inaugurated at our Public Comfort Station several years ago. The towels here, after being laundered, folded and wrapped, are delivered from a penny slot machine to the patrons. In this way they are kept clean from dust and are not handled by the attendants. In a year 15,000 towels are used by the patrons at the Public Comfort Station.

The house on Market Place has outgrown it present equipment, and frequently a crowd is obliged to wait there. The Commission hopes in the near future to obtain funds with which to enlarge the house and increase its equipment.

These houses, which are a necessity for every large city, should be erected in several other crowded localities, and the Commission has been gratified to learn that the Board of Estimates has provided for several additional stations in or near the market houses of the city.

We expect that the one now in process of construction near the Belair Market, built in connection with the Greenmount Avenue Baths, will be largely used. One especially crowded section of the city without such a convenience is the Light Street Wharf District, and there still remain several sites along this thoroughfare where a Public Comfort Station could be erected. Such an establishment would prove a convenience to policemen, letter-carriers, drivers and street workers generally, as well as to the many thousand transient visitors who enter the city here.

THE PORTABLE BATHS.

These unpretentious houses have quietly done good service since August, 1908; they have been set up in eight or nine various neighborhoods, where bathing facilities were few, and since their establishment 155,000 persons have used them. During two winters past they have been made somewhat more secure, and kept warmer for the winter and cooler months, and during these months of 1910 and 1911 24,700 persons have availed themselves of these houses.

Their use has served another purpose, not anticipated when first built; they have been easily carried and set up as an experiment in one or another neighborhood, and by their success have proven the need of permanent bath buildings.

TWO PUBLIC EXHIBITS OF OUR WORK.

During the past year the Commission accepted invitations to make two displays of their work by photographs and plans of buildings, reports and other printed matter, in May, at the City Plan Exhibit, in the City Hall, Philadelphia, and in September at the Maryland Industrial and Pure Food Show in the Fifth Regiment Armory. Both these displays have helped advertise the system of public baths maintained by our city. Reports and literature were distributed to inquirers from this city and elsewhere.

INSTRUCTION IN SWIMMING.

As a result of our swimming instruction given during the past summer at the five outdoor bathing stations, 1,021 persons learned the valuable art of swimming, of whom 227 were women and girls. The entire number of persons under instruction in various methods of swimming was 15,000. Mr. A. S. Lowsley was instructor for men and boys, and Miss Ethel M. Watters for women and girls. Mr. Geo. W. Butterworth, manager of Winans Beach Baths, was also an instructor during the season at his bathing beach.

The Public Athletic League at several bathing stations conducted tests for swimmers and presented badges to those who were proficient. Fifty-one bronze badges and seven silver badges were given to boys who were successful in these contests, and twenty bronze badges were given to girls for similar proficiency.

This public spirit shown by the Public Athletic League and their co-operation in swimming instruction and contests kept alive the interest in swimming and bathing during the entire season.

NO DROWNINGS NOR SERIOUS ACCIDENTS.

In spite of the patronage of over one million persons of our various buildings and beaches, we are happy to report that not a single drowning case occurred nor a serious accident during 1911.

Our life-guards are chosen for their courage and skill, and it is a tribute to their watchfulness that they have made rescues of 70 or 75 persons, some of them from great peril, and have lost none. This feature of the outdoor baths may be mentioned again, that youthful bathers are attracted from dangerous or lonely swimming places to the public beaches, where proper oversight and protection is given them.

BATHS AS A FACTOR IN DECREASE OF DISEASE.

In emphasizing the value of our baths as a preventative of infectious diseases, Dr. Gichner, of our Commission, says that parasitic skin diseases have been in a large measure diminished in certain sections as attested by Dr. Gosweiler, formerly dispensary physician of the eastern district of the city. As an indication of our efforts to further this sanitary movement, we have increased the number of days allowed to men in the public laundry on High street, and also continue, by advertising and addresses, our propaganda for having the children use the baths free on all occasions.

RECOMMENDATIONS.

The Commission wish to reiterate several recommendations embodied in the report of last year.

1. In other parks than Patterson, e. g., in Carroll, Clifton, and even in Druid Hill Park, such swimming pools as the one in Patterson Park, would be most healthful and attractive and largely patronized.

2. The Commission desire to express its approval of the movement, now on foot, to purchase a portion of the land fronting on the water and to use it for a public park.

3. The Commission again urges the importance of the construction of an indoor swimming pool in one of the congested sections of the city where, during the winter, the healthful exercise of swimming could be taught and practised.

In New York, Boston and other cities such indoor pools serve a useful purpose. In some parts of our city there are miles of residence streets where the young are subjected to the noise and dirt of the streets, with little opportunity for cleanliness and recreation.

Here the indoor swimming pool, open all the year round, would be a fitting supplement to the outdoor swimming beach, or to the cleansing shower baths.

CO-OPERATION WITH OTHER CITY DEPARTMENTS.

The thanks of the Commission are due to the various city departments who lent aid to us during the past year, especially to the Board of Park Commissioners, the Police Department, the Water Department, the City Engineer, and the Topographical Survey Commission.

The statistical tables for 1911 are appended.

Respectfully submitted,

(Signed) EUGENE LEVERING,
President Free Public Bath Commission.

TABLES

WALTERS BATHS NO. 1—1911.

Months.	Bathers.		Laundry.		
	Men and Boys.	Women and Girls.	Men.	Women.	Total.
January	12,220	4,398	709	96	17,423
February	11,450	4,345	824	71	16,690
March	12,878	4,778	735	77	18,468
April	14,975	7,380	431	76	22,862
May	20,650	8,271	331	100	29,352
June	20,173	8,331	324	69	28,897
July	22,065	9,198	322	49	31,634
August	20,400	8,906	279	65	29,650
September	15,666	6,826	284	71	22,847
October	10,449	4,743	282	77	15,551
November	9,039	4,544	337	70	13,990
December	10,556	4,926	783	71	16,336
Totals	180,521	76,646	5,641	892	263,700

WALTERS BATHS NO. 2—1911.

Months.	Bathers.		Laundry	Total.
	Men and Boys.	Women and Girls.	For Women Only.	
January	4,931	1,138	343	6,412
February	4,625	1,170	330	6,125
March	5,320	1,263	288	6,871
April	6,433	1,588	259	8,280
May	9,174	2,451	193	11,818
June	10,164	2,945	189	13,298
July	11,921	3,378	163	15,462
August	10,849	3,385	180	14,414
September	8,066	2,424	197	10,687
October	5,201	1,028	220	6,449
November	4,115	921	267	5,303
December	4,818	1,132	318	6,268
Totals	85,617	22,823	2,947	111,387

WALTERS BATHS NO. 3—1911.

Months.	Bathers.		Laundry	Total.
	Men and Boys.	Women and Girls.	For Women Only.	
January	1,412	145	603	2,100
February	1,064	153	603	1,820
March	1,304	164	604	2,072
April	1,701	237	629	2,567
May	3,026	697	750	4,473
June	2,625	603	639	3,867
July	3,049	543	635	4,227
August	2,143	481	521	3,145
September	1,942	296	725	2,963
October	1,463	213	621	2,297
November	1,087	161	583	1,831
December	1,216	126	754	2,096
Totals	22,032	3,819	7,667	33,518

WALTERS BATHS NO. 4—1911.

Months.	Bathers.		Laundry	Total.
	Men and Boys.	Women and Girls.	For Women Only.	
April (16 days)	3,035	1,049	7	4,091
May	7,169	3,053	36	10,258
June	7,588	3,398	39	11,025
July	10,152	3,955	28	14,135
August	8,643	3,574	28	12,245
September	5,095	1,943	26	7,064
October	2,603	714	26	3,343
November	1,881	491	98	2,470
December	2,127	612	147	2,886
Totals	48,293	18,789	435	67,517

PATTERSON PARK BATHS—1911.

Months.	Swimming Pool.		Indoor Showers and Lockers.		Total.
	Men and Boys.	Women and Girls.	Men and Boys.	Women and Girls.	
January	.....	.....	2,079	.....	2,079
February	.....	.....	1,816	.....	1,816
March	.....	.....	2,208	.....	2,208
April	.....	.....	3,473	4	3,477
May	7,459	1,223	6,119	670	15,471
June	24,607	4,998	6,101	1,448	37,154
July	46,106	6,421	5,117	1,906	59,550
August	21,964	5,061	4,115	1,112	32,252
September	3,225	464	4,670	408	8,767
October	.....	.....	2,780	33	2,813
November	.....	.....	3,191	.....	3,191
December	.....	.....	2,493	.....	2,493
Totals	103,361	18,167	44,162	5,581	171,271

HARBOR SWIMMING BATHS.

May 27th to September 12th, 1911.

Stations.	Men and Boys.	Women and Girls.	Total.
Winans' Beach	68,281	.....	68,281
Canton	23,224	.....	23,224
Locust Point	25,123	9,255	34,378
Gwynn's Falls	19,400	.....	19,400
Totals	136,028	9,255	145,283

PORTABLE BATHS—1911.

STATIONS.	Men and Boys.	Women and Girls.	Total.
Bath No. 1. Greenmount Ave. and Monument St.			
Open 6 months	6,281	3,225	9,506
Bath No. 2. Bond St. and Eastern Ave.			
Open all the year	21,568	11,558	33,126
Bath No. 3. Regester St., near Fleet St.			
Open 9 months	18,367	10,060	28,427
Bath No. 4. Race St., near Cross St. FOR COLORED PEOPLE.			
Open 2 months	1,970	523	2,493
Totals	48,186	25,366	73,552

WEST PARK RECREATION HOUSE, HAMPDEN.

Months.	Men and Boys.	Women and Girls.	Total.
June, open 17th	2,816	858	3,674
July	6,128	1,630	7,758
August	4,206	1,375	5,581
September	2,249	838	3,087
October	1,412	300	1,712
November	1,199	238	1,437
December	1,125	409	1,534
Totals	19,135	5,648	24,783

PUBLIC COMFORT STATION — ATTENDANCE, 1911.

Months	Men.	Women.	Total.
January	27,416	4,439	31,855
February	22,560	4,074	26,634
March	26,405	4,746	31,151
April	26,098	4,326	30,424
May	27,601	5,103	32,704
June	30,415	5,615	36,030
July	34,965	5,007	39,972
August	34,497	4,925	39,422
September	30,250	3,714	33,964
October	31,506	3,470	34,976
November	27,564	3,755	31,319
December	27,925	4,527	32,452
Totals	347,202	53,701	400,903

About 200,000 persons used the drinking fountains here.

RECEIPTS FROM FEES—1911.

STATIONS.	Baths.	Laundry.	Total.
Walters Baths No. 1, 131-133 S. High street	$6,776 37	$246 67	$7,023 04
Walters Baths No. 2, 900-902 Columbia avenue	3,034 14	335 72	3,369 86
Walters Baths No. 3, 1018-1022 Argyle avenue	829 91	522 67	1,352 58
Walters Baths No. 4, West and Marshall streets	1,103 75	35 46	1,139 21
Public Comfort Station, Market Place	745 67	.....	745 67
Patterson Park	1,780 05	.....	1,780 05
Outdoor Baths.			
Winans	577 25	.....	577 25
Canton	81 83	.....	81 83
Locust Point	184 71	.....	184 71
Gwynn's Falls	165 43	.....	165 43
Portable Baths.			
No. 1	69 72	.....	69 72
No. 2	198 30	.....	198 30
No. 3	65 61	.....	65 61
No. 4	14 81	.....	14 81
Hampden	167 99	.....	167 99
From sale of old material	.....	.....	76 50
Totals	.....	.....	$17,012 56

COMPARATIVE TABLE SHOWING ANNUAL INCREASE IN PATRONS.

1900—Indoor baths	48,827	
1900—Outdoor baths	42,034	
		90,861
1901—Indoor baths	73,721	
1901—Outdoor baths	51,209	
		124,930
1902—Indoor baths	155,228	
1902—Outdoor baths	52,665	
		207,893
1903—Indoor baths	197,026	
1903—Outdoor baths	49,435	
		246,461
1904—Indoor baths	242,573	
1904—Outdoor baths	71,723	
		314,296
1905—Indoor baths	284,159	
1905—Outdoor baths	96,603	
		380,762
1906—Indoor baths	327,172	
1906—Outdoor baths	152,452	
		479,625
1907—Indoor baths	342,951	
1907—Outdoor baths	156,847	
		499,798
1908—Indoor baths	376,549	
1908—Outdoor baths	213,712	
		590,261
Public Comfort Station	230,005	
1909—Indoor baths	435,692	
1909—Outdoor baths	195,179	
		630,871
Public Comfort Station	359,625	
1910—Indoor baths	494,868	
1910—Outdoor baths	262,316	
		757,184
Public Comfort Station	421,974	
1911—Indoor baths	624,202	
1911—Outdoor baths	266,811	
		891,013
Public Comfort Station	400,903	
		12,919 16

COMPARATIVE TABLE SHOWING ANNUAL RECEIPTS FROM FEES AT PUBLIC BATHS.

1901	$2,906 46
1902	4,803 18
1903	5,981 55
1904	7,373 86
1905	8,960 90
1906	11,438 95
1907	12,027 53
1908	13,109 53
1909	13,501 99
1910	14,996 02
1911	17,012 56

Department of Public Improvements—Sub-Department Harbor Board

ANNUAL REPORT

OF THE

HARBOR BOARD

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDED DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

DEPARTMENT OF PUBLIC IMPROVEMENTS

SUB-DEPARTMENT HARBOR BOARD

BALTIMORE, MARYLAND

JANUARY, NINETEEN HUNDRED AND TWELVE

OSCAR F. LACKEY, HARBOR ENGINEER, *President.*

WILLIAM D. SANNER, *Secretary.*

JAMES S. ARMIGER.

WILLIAM G. KNAPP.

MARCELLUS H. GOODRICH.

JAMES H. IRVIN, *Clerk.*

REPORT

REPORT

OFFICE OF THE

HARBOR BOARD OF BALTIMORE.

BALTIMORE, January, 1912.

To the Honorable, the Mayor and City Council of Baltimore.

GENTLEMEN:

The Harbor Board has the honor to submit the following report of the operations of this Sub-Department for the year 1911:

The several sub-divisions of public work in charge of the Board are as follows:

1. Harbor maintenance and improvement, including the maintenance and operation of the tug "Baltimore."

2. Iceboats, their maintenance, repair and operation when required.

3. Wharves and bridges, including the construction and repair of all city wharves, bulkheads, etc., the general supervision of all wharves and bulkheads, with a view to the enforcement of laws regulating the construction and condition of piers and bulkheads; the granting of permits to construct, extend or alter piers or bulkheads, and the repair and maintenance of all city bridges over navigable waters.

4. The supervision of "anchorages," and the enforcement of all laws and regulations relating to the anchoring of vessels in the harbor.

5. The removal of unsanitary floating matter from the harbor and docks.

6. The reception and disposal of ashes from towboats.

7. As occasion may arise, the removal of vessels sunken in the harbor.

8. And (under the opinion of the City Solicitor) the construction of the new system of piers and docks, as authorized by Ordinance No. 149, November 10, 1904.

Appropriations, etc., for the year 1911, were as follows:

Salaries (Engineer and Clerk)	$6,086 67
Dredging harbor	42,622 43
Iceboats	25,105 00
Repairs of wharves	12,902 53
Removal of floating matter	1,935 00
Removal of ashes	1,100 00
Incidentals	500 00
Light Street Bridge	7,082 04
Bulkhead, Old Marine Hospital	18,000 00
Public wharves and docks	236,366 27
New Improvements—	
Commercial pier, East Baltimore	400,000 00
Commercial highway, South Baltimore	300,000 00
Widening Pratt street	185,000 00
Total Departmental Appropriation	$1,236,699 94

DREDGING.

In reference to the dredging of the harbor, we respectfully refer you to the report of Mr. J. D. Custy, Superintendent of Dredging:

MR. O. F. LACKEY, *Harbor Engineer.*

DEAR SIR:

I have the honor of submitting my report for dredging for the season of 1911.

Proposals for dredging the harbor for the year 1911 were opened on March 15, 1911, and contract awarded the Maryland Dredging and Contracting Company, the material to be deposited on the United States Government dumping grounds at the following prices:

Ship channels and harbor.....15 cents per cubic yard
Back basin and docks.....15 cents per cubic yard
Middle branch docks and channels.....15 cents per cubic yard

Work was started under the contract on April 10, and was completed on December 6.

The following dredges were employed on the work: "Patapsco," "Baltimore," "Washington" and "Maryland."

The main channel was dredged to a depth of 30 feet for a distance of 1,900 feet by 135 feet, from the west side of Elevator "B" to the west side of Pier No. 8 (North German Lloyd Steamship Company).

Work was commenced on a 35-foot turn basin, 600 feet by 600 feet, in front of the Pennsylvania Railroad Pier No. 6, Canton, but was not completed, owing to the appropriation having become exhausted.

Twelve thousand four hundred and eighty-seven cubic yards of material were removed from the catch basin at the mouth of Jones' Falls.

The following tables give the amount and location of dredging done during the year 1911 and amount paid for same:

[TABLE 1.]

LOCATION.	Depth in Ft.	Width in Ft.	Area in Sq. Ft.	Quantity in Cu. Yd.	Rate.	Amount.
Back Basin and Docks.						
Foot of Battery avenue	H.B.	50	4,500	726	.15	$108 90
Foot of Cross street	18	50	6,000	800	.15	120 00
Foot of Webster street	15	50	5,000	1,165	.15	174 75
Foot of Ann street	18	50	3,000	316	.15	47 40
Foot of Thames street	15	50	3,250	975	.15	146 25
Foot of Chester street	18	50	4,000	250	.15	37 50
Foot of Canton street	H.B.	50	6,250	800	.15	120 00
Foot of Broadway	H.B.	45	5,400	1,186	.15	177 90
Foot of Washington street	18	25	1,750	513	.15	76 95
Pier No. 1, Light Street Wharf	H.B.	90	10,800	1,162	.15	174 30
Pier No. 6, Light Street Wharf	H.B.	25	1,000	70	.15	10 50
Between Piers 1 and 2 Light street	H.B.	50	3,500	925	.15	138 75
Between Piers 7½ and 8 Light street	H.B.	25	750	50	.15	7 50
Old Bay Line Wharf, Light and Lee streets	H.B.	25	1,500	500	.15	75 00
Light and Lee streets (Chesapeake Steamship Company)	H.B.	50	3,000	230	.15	34 50
Platt's Dock	H.B.	25	1,000	163	.15	24 45
Inside Harris' Creek	18	50	9,000	2,467	.15	370 05
North side Schall's Dock	15	25	2,000	513	.15	76 95
Back basin	18	180	67,000	8,502	.15	1,275 30
North Dock Center Pier	18	75	150,000	5,167	.15	775 05
South Dock Center Pier	18	45	90,000	2,688	.15	403 20
Totals			378,700	29,168	.15	$4,375 20
Ship Channels and Harbor.						
Main channel in front of Piers 8 and 9 Locust Point	30	135	256,500	38,190	.15	5 728 50
Main channel in front of Pennsylvania Railroad piers, Canton	35	135	72,000	24,369	.15	3,655 35
Catch basin, Jones' Falls	H.B.	135	108,000	12,487	.15	1,873 05
In front of Booz Brothers	24	90	27,000	5,906	.15	885 90
In front of Atlantic Wharf	20	50	9,000	2,698	.15	404 70
In front of Chipman's chair factory	15	50	4,750	587	.15	88 05
In front Thomas' Wharf, Boston street	15	25	1,425	535	.15	80 25
Outside Harris' Creek	18	75	11,250	2,290	.15	343 50
East side of Pier 8, Lancaster street	20	45	14,250	1,590	.15	238 50
Totals			504,175	88,652	.15	$13,297 80
Middle Branch Docks and Channels.						
Foot of Eutaw street	15	50	22,050	2,759	.15	413 85
Foot of Howard street	15	50	7,500	3,363	.15	504 45
Foot of Fort avenue	15	75	15,700	2,988	.15	448 20
Front of garbage wharf, Spring Gardens	18	25	3,000	304	.15	45 60
Front of garbage wharf, Winans' Cove	15	25	4,000	791	.15	118 65
Evans' marble yard	18	25	2,175	827	.15	124 05
Consumers' Wharf	15	25	3,250	587	.15	88 05
Chatsworth Run	15	50	9,750	4,768	.15	715 20
Launch Way, Light Street Bridge	15	25	1,000	383	.15	57 45
Upper end of main channel	18	75	19,500	8,453	.15	1,267 95
Bush Street Dock	18	75	80,500	12,262	.15	1,839 30
Bush Street Channel	18	90	87,750	23,429	.15	3,514 35
Totals			256,175	60,914	.15	$9,137 10

NOTE—H. B. denotes hard bottom.

From this table it will be seen that the following was expended.

Back basin and docks	$4,375 20
Ship channels and harbor	13,297 80
Middle branch docks and channels	9,137 10
Total	$26,810 10

The following dredging was also done by the Harbor Board and charged to the construction of Piers Nos. 4, 5 and 6 and East Falls Avenue Bulkhead.

TABLE NO. 2.

Main channel from Piers Nos. 2 to 5	79,601 cubic yards
Slip, Pier No. 4, Pratt street	5,805 cubic yards
West side of Pier No. 3, Pratt street	1,000 cubic yards
East side of Pier No. 3, Pratt street	930 cubic yards
West side of Pier No. 2, Pratt street	500 cubic yards
Between Piers Nos. 3 and 4, Pratt street	450 cubic yards
Between Piers Nos. 4 and 5, Pratt street	650 cubic yards
Jones' Falls	38,079 cubic yards
Total	127,015 cubic yards

The amount of dredging done by private parties under permits granted by the Harbor Board was as follows:

Burns & Russell, Dundalk	1,000 cubic yards
Davison Chemical Company	3,000 cubic yards
Evans Marble Company, south side of basin	4,500 cubic yards
Northern Central Railway piers, Lower Canton	125,000 cubic yards
Consolidated Gas Electric Light and Power Company, Spring Gardens	3,500 cubic yards
Miscellaneous work	145,520 cubic yards
Total	282,520 cubic yards

The United States Government removed the following amounts from the Patapsco River and tributaries:

Main channel, Patapsco River	1,990,158	cubic yards
Spring Garden channel	228,249	cubic yards
Curtis Bay channel	90,013	cubic yards
Total	2,308,420	cubic yards

TABLE NO. 3.

Recapitulation—

Harbor Board	305,749	cubic yards
United States Government	2,308,420	cubic yards
Private parties	282,520	cubic yards
Grand total	2,896,689	cubic yards

Respectfully submitted,

J. D. CUSTY,
Superintendent of Dredging.

Table No. 1 shows the location and quantity of material removed under the contract of the Maryland Dredging Company, and Table No. 3 gives the total quantity of material removed from the harbor during the year.

Bidders were requested to give a price both for dumping the dredged material "as may be required by the United States Government" and for depositing behind the bulkhead of the Old Marine Hospital.

The price for dumping behind bulkhead was twenty cents a cubic yard against fifteen cents for dumping in the bay.

As this Board felt it was more necessary and advisable to dredge than to fill behind the bulkhead, the contractor was authorized to dump the dredged material in the bay, thus enabling us to remove an additional 76,430 cubic yards.

MARINE HOSPITAL BULKHEAD.

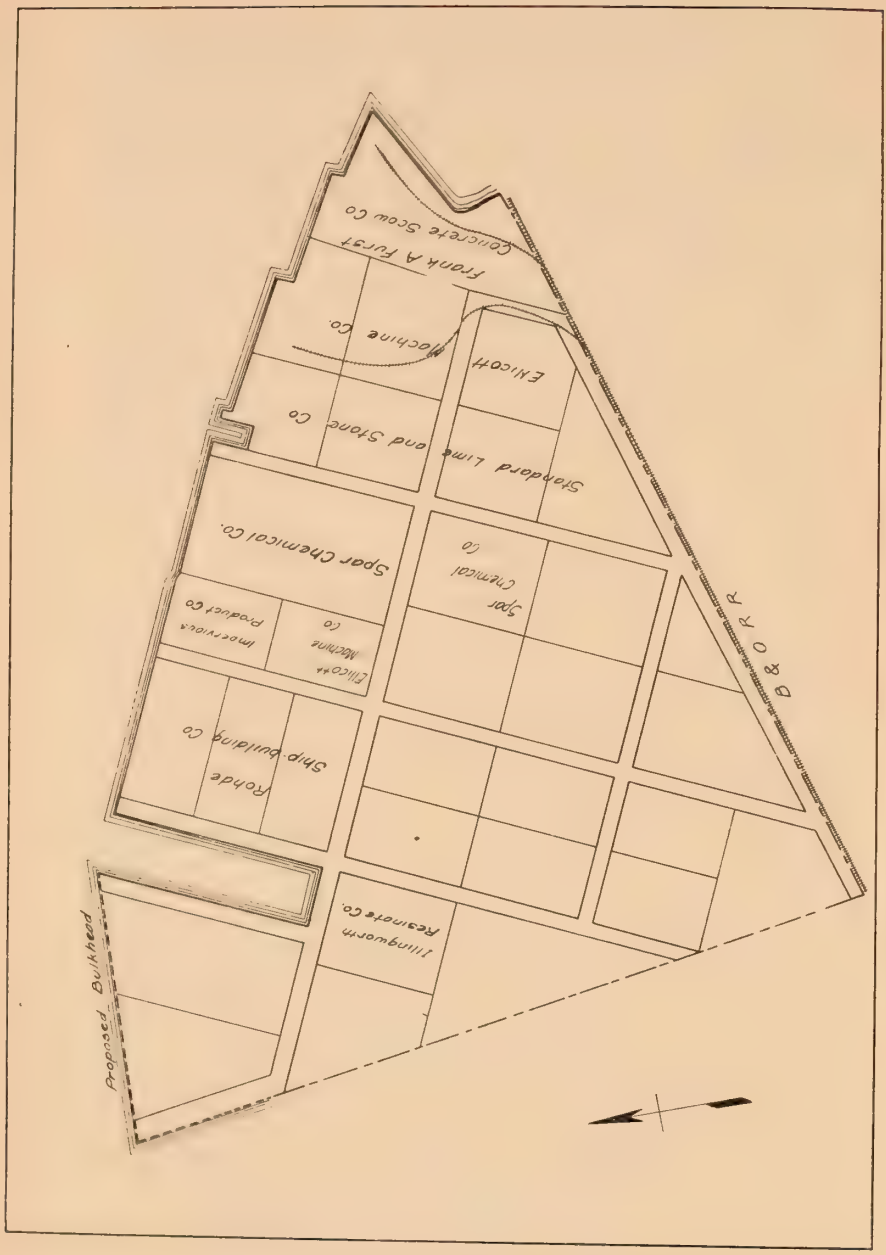
The bulkhead work started in 1909, for the purpose of reclaiming about 46 acres of land and making a total of 173 acres of most desirable water front property, was extended about 900 feet during the year.

Through the efforts of the Factory Site Commission, nearly half of this property has been sold, or leased.

There has been established several new industries and it has further been the means of holding in Baltimore old industries whose increased business made a new water front location necessary.

Among those now located at the old Marine Hospital site are:

The Furst Concrete Scow Construction Company.
Standard Lime and Stone Company.
Ellicott Machine Company.
Spar Chemical Company.
Impervious Product Company.
Rhode Shipbuilding Company.
Illingworth Resinate Company.



PLAT SHOWING PRESENT CONDITION OF OLD MARINE HOSPITAL PROPERTY.

There yet remains about 1,500 linear feet of bulkhead to be constructed, and the Harbor Board requested an appropriation of $18,000 for the year 1912 to enable them to continue the work, but the Board of Estimates felt it advisable not to spend any more money in developing this property until they had some assurance that the city would net a return on the money invested. As they have this assurance, it is our hope that a sufficient amount will be set aside in the Ordinance of Estimates to allow us to continue with the work. There is even more reason now, than ever before, that this property should be closed in, as by a recent ruling of the Government Engineer of this port, no material taken from above mean low tide will be allowed to be deposited on the government dump, which means it must be hauled to the mouth of the bay or pumped over some private bulkhead. The additional cost of pumping ranges from five to seven cents a cubic yard, and unless the city can provide a place where this material may be pumped, it becomes necessary that they also pay for the privilege of depositing the material dredged behind a private bulkhead.

ICEBOATS.

Owing to the moderate temperature during the ice season of 1910 and 1911, the service of the boats was not required. The ice season did not begin until January, 1912, and will be taken up in the next annual report.

"Annapolis"—Steam capstan was installed on the after deck and one pair of davits constructed to take a 20-foot gasoline launch, the same being used as tender to convey lines from the iceboat to vessels in distress. Tubes were overhauled and new tubes placed where needed and the dynamo was overhauled and repaired.

"Latrobe"—The superheater of the "Latrobe" was overhauled and two new steel pipes installed. A new 12-inch 20-ampere type D, Rushmore lens, mirror projector searchlight was installed.

The signals from the pilot-house to the engine room were rearranged on both boats to meet the government requirements.

Both boats were fitted with a mechanical device for regulating the speed of the wheels, each wheel being run by independent engines. By fixing the rate of speed of each wheel the same number of revolutions, assisted very materially in the steering of the boats.

The wheels and arms of both boats were overhauled and repaired.

Both boats were hauled and the bottoms scraped and painted, this work being done under contract by the Skinner Shipbuilding and Dry Dock Company.

TUG "BALTIMORE."

The tug was hauled, scraped and painted, the searchlight and other lights overhauled. New rings were installed in both cylinders, boiler covered with asbestos, new rudder and rudder posts installed.

CONDENSED LOG OF THE TUGBOAT "BALTIMORE" FOR 1911.

[TABLE 4.]

TRIPS FROM BERTH AND RETURN.

| MONTH. | Ash Scow. | Around Anchorage. | Pier No. 4 | Havre de Grace. | New Quarantine. | Spring Gardens. | Western Maryland Pier. | Coal Dock. | City Pier. | Curtis Creek. | Old Quarantine. | Back Basin. | Light Street Bridge. | Bodkins Creek. | Stony Creek. | Rock Creek. | Reeder's Wharf. | Foot of Broadway. | Pier No. 5. | Magothy River. | Around Harbor. | Bay Line Wharf. | Middle Branch. | B. & O. Pier No. 24. | Broom's Pier. | N. C. R. R. Pier No. 6. | Pier No. 7. | Maryland Dredging Co. Yard. | Sparrows Point. | Montford Avenue Wharf. | Pier No. 6. | Pier No. 1. | Foot of Ann Street. | Pratt Street Bridge. | Sanford & Brooks' Yard. | Down the Bay. | Ore Pier. | Chesterwood. | Canton Box Co. Wharf. | Cohill's Wharf. | Chester Street Wharf. | Gibb's Wharf. | B. & O. Pier No. 10. | Booze's Wharf. | Pier No. 2. | Skinner's Upper Dock. | Skinner's Lower Dock. | Torsch's Wharf. | Spedden's Wharf. | Block Street Wharf. | Retail Wharf. | Fort Carroll. | Ferry Bar. | Locust Point. | Winans' Wharf. | Love Point. | Gill's Wharf. | Foot of Sharp Street. | South River. | B. & O. Pier No. 8. | Henderson's Wharf. | Canton Hollow. | Pier No. 15, Light Street. |
|---|---|---

ANCHORAGE BUOYS.

Broken buoys on anchorages were removed and replaced by new spars, and those buoys out of their respective positions were relocated.

HARBOR BOARD ANNEX.

In reference to same, we respectfully refer you to the report of Mr. Edward L. Micheau, Assistant Engineer:

MR. O. F. LACKEY, *Harbor Engineer.*
DEAR SIR:

Following is a report of the work accomplished by the Harbor Board Annex force during the year 1911:

SURVEYS.

Survey for proposed recreation pier and improvements at the foot of Broadway.

Survey of second and third sections of proposed waterfront street on the south side of harbor.

Hydrographic survey of a portion of the lower Patapsco River, covering an area of approximately seven square miles.

Survey work in connection with the construction of the Pratt Street Bridge over Jones' Falls.

Several miscellaneous surveys in connection with various proposed improvements around the harbor.

Location of two sunken vessels in the Patapsco River.

PLANS, ESTIMATES AND DESIGNS.

Condemnation plats for the first section of the proposed waterfront street on the south side of harbor.

Location plan of the first section of the proposed waterfront street on the south side of harbor.

Profiles of the grades of the first section of the proposed waterfront street and intersecting streets.

Location plan of the proposed recreation pier at the foot of Broadway.

Condemnation plat for the proposed recreation pier at the foot of Broadway.

Preliminary estimate of the cost of entire first section of proposed waterfront street and piers on the south side of harbor.

Preliminary estimate of the cost of proposed recreation pier and improvements at the foot of Broadway.

Preliminary estimate of costs of proposed concrete bridges over Spring Gardens at the foot of Light street.

Design of reinforced and gravity concrete retaining walls in connection with south side improvements.

Design of four different types of reinforced concrete and timber bulkhead construction.

Preliminary design of superstructure for proposed recreation pier at foot of Broadway.

Seventy-five miscellaneous plans and drawings.

Plotted entire shore line of lower Patapsco River on sectional sheets. (Scale 200 feet to 1 inch.)

In addition to the above, this office furnished the inspection and engineering supervision for the construction of the Pratt Street Bridge and the bulkhead at the Old Marine Hospital property.

Very respectfully,

EDWARD L. MICHEAU,
Assistant Engineer.

REPAIRS TO WHARVES.

In reference to same, we beg to respectfully refer you to the following report of the Superintendent of Wharves:

MR. O. F. LACKEY, *Harbor Engineer.*

DEAR SIR:

I respectfully beg to submit herewith my report for the year 1911:

Pulled up and redrove cluster of piles on east side of Pier No. 8 and pulled up old sunken piles in back basin.

Superintended the driving of cluster piles on west end of Pier No. 2 for the Atlantic Fruit Company, and removed sunken cluster of piles.

Painted and placed new buoys and removed old ones on the different anchorages from time to time.

Removed twenty old arms, four scarfs, forty-five segments and twelve bucket straps, bolts and other iron work, replaced new windlass and capstan and made other repairs on the "Annapolis" and tug "Baltimore."

Removed stone bulkhead foot of Dock street and replaced same with timber and pile fenders.

Filled sunken hole behind sheet piling on Pier No. 1, about seventy-five feet long, washing out same and dumping about eighty loads of brickbats.

Superintended the building of 150 feet of bulkhead and dumping platform at Winan's Cove for the Street Cleaning Department; drove nineteen new oak fender piles and placed scow load of ashes behind bulkhead for fill.

Painted fence between Piers Nos. 1, 2, 3 and 4.

Repaired fender and waling pieces on Piers Nos. 4, 5 and 6 and West Falls avenue.

Filled sunken places on Pier No. 2 with stone and brickbats.

The wharf at Chesterwood was reported in bad condition and condemned as directed by you, and the owners were notified to rebuild at once.

Drove fender piles, bracing and chocks, put in new straps, gates and hinges and repaired hand rail and platform from time to time at small city pier at foot of Calvert street.

I also made a general inspection of all wharf property, including Light Street Bridge and superintended repairs, and likewise made a thorough examination of all wharf property for which permits were granted by the Harbor Board with a view of seeing that the work on same was properly carried out in accordance with the provisions of said permits.

Yours respectfully,

WILLIAM A. MCDONOUGH,
Superintendent of Wharves.

LIGHT STREET BRIDGE.

After a thorough investigation it was found that there would be needed a substantial increase in the appropriation for the maintenance of Light Street Bridge in 1912 over the appropriation allowed in previous years, due to the fact that the larger timbers of the floor system and also the timbers of the frame bents were beginning to decay and a great number of the same will have to be replaced; the annual maintenance of the bridge being increased about $6,000.

As these timbers are of about the same age and subject to the same conditions, it is only fair to assume that within the next few years all frame bents, stringers, caps, etc., will have to be renewed, and it was for this reason that the Harbor Board, in its annual report of 1909, urgently recommended that a new bridge be constructed to replace the present bridge, as the maintenance on the present Light Street Bridge is almost sufficient in itself, it increasing yearly, to pay the interest and sinking fund on a loan sufficient to construct a new bridge.

A new Light Street Bridge is but part of the plan suggested by this Department some years ago, worked out on a broad plan to develop the harbor of Baltimore.

The total annual appropriation asked for 1912 was $16,619. As it becomes necessary to replace the present timbers and piles of the old bridge, the cost of maintenance will increase in 1913 to about $22,000.

DISTRIBUTION OF LOADED SCOWS PASSING THROUGH DRAW.

Material.	No.	Tons.
Coal	494	80,696
Garbage	494	48,305
Fertilizer	188	17,325
Brick	94	10,750
Sand	15	1,905
Marble	43	3,490
Plaster	9	1,825
Lumber	3	250
Oil	3	87
Mud	228	77,000
Barrels	6	110
Can goods	6	425
Empties	1,101	.....

DISTRIBUTION OF LOADED BARGES PASSING THROUGH DRAW.

Material.	No.	Tons.
Coal	50	28,250
Fertilizer	53	5,665
Brick	19	1,000
Lumber	72	20,400
Oil	55	26,700
Ice	16	13,900
Empties	317	.....

DISTRIBUTION OF LOADED SCHOONERS PASSING THROUGH DRAW.

Material.	No.	Tons.
Lumber	209	18,335
Ice	5	7,920
Wood	96	8,220
Manure	11	605
Hay	2	125
Empties	382	.....

DISTRIBUTION OF LOADED STEAMERS PASSING THROUGH DRAW.

Material.	No.	Tons.
Sand	23	6,650
Lumber	11	2,550
Empties	1,381	.....

TRAVEL OVER BRIDGE.

Single teams	102,740
Double teams	108,440
Street cars	105,454
Funerals	496

ITEMS OF REPAIR WORK ON BRIDGE DURING THE YEAR.

Top Floor, Roadway—	
New linear feet	800
Relayed linear feet	2,600
Bottom Floor, Roadway—	
New linear feet	600
Footway—	
New linear feet	110
Relayed linear feet	252
New linear feet joists	196
Caps Under Tracks—	
New linear feet	622

REMOVAL OF ASHES.

As provided for by law, there is anchored off Anchorage No. 1 a scow upon which are deposited ashes of the tugboats plying in the harbor to prevent the same from being thrown in the ship channels.

Nearly all of these ashes were deposited behind the property of the United States Revenue Service in Curtis Creek.

REMOVAL OF FLOATING MATTER.

For the purpose of keeping the harbor free of floating matter there are during the months of June, July, August and September, one superintendent and six boatmen appointed by the Department, and the material removed may be seen from the table below.

REMOVAL OF FLOATING MATTER.

Floating Matter.	Boat No. 1.	Boat No. 2.	Boat No. 3.	Boat No. 4.	Total.
Cats	55	122	88	100	365
Rats	151	199	135	157	642
Dogs	48	80	78	68	274
Fowl	40	90	50	22	202
Meat (pounds)	163	316	163	232	874
Turtles	10	13	5	8	36
Loads of melon rind	6	5	39	6	56
Loads of wood	102	148	82	86	418
Logs	17	182	30	52	281
Fish	.....	25	.....	25	50
Loads of melons	.....	23	15	25	63
Loads of garbage	.....	.....	.....	28	28
Horses	.....	2	.....	.....	2
Wagon	.....	1	.....	.....	1

NEW WORK.

South Side—Plans and surveys as provided for by Chapter 485 of the Acts of 1910 of the General Assembly of Maryland were approved by the Harbor Board under date of January 18, 1911, and the Board of Estimates under date of January 24, 1911.

The Act further provided that the Harbor Board, in so far as it was able, should negotiate for and purchase the property needed for the contemplated improvements, and that all purchases should be made subject to the approval of the Board of Estimates. Where it was impossible for the Harbor Board to buy by private sale the same was to be condemned by the Commissioners for Opening Streets.

While the abstract of titles were being drawn up by the Legal Department and the condemnation plat prepared, the Harbor Board were carrying on negotiations for property by private sale and succeeded in purchasing:

9 Fee simple interests, 7 Leasehold interests, 9 Reversionary interests,	$142,630 16

Under agreement, but not purchased:

4 Fee simple interests, 19 Leasehold interests, 4 Reversionary interests,	$120,020 32

Estimated value of entire property to be purchased	$397,500 00
Total bought and under agreement in 1911, being 66 per cent. of the whole	262,650 48
Balance to be purchased	$134,849 52

We call special attention to the fact that the negotiations of the Harbor Board in no way held up or delayed the acquisition of the property as a whole, for as previously stated, this Board was purchasing property before the condemnation plans were completed and before the Commissioners for Opening

Streets were in a position to start making their awards and closing the condemnation proceedings.

The City Surveyor was authorized to go ahead with the condemnation plat and the same was not turned over to the Commissioners for Opening Streets this year. A preliminary plat, however, was furnished by the Harbor Board under date of December 15, 1911, and a letter written to the Commissioners for Opening Streets requesting them to start condemnation of the property.

If there have been seemingly delays in connection with the work in South Baltimore, it has not been occasioned by any neglect or inactivity or want of energy on the part of this Department, nor as we see it, is any one Department responsible. Any delay that may have been occasioned has been brought about by the laws governing the condemnation of property for public improvements, and until these laws are repealed and changed it will remain impossible for the city to acquire large tracts of property for public improvements within, what may be termed, a reasonable time.

The plans for the retaining wall of Federal Hill Park were virtually completed the latter part of this year, as also were the plans and profiles for the paving of the first section, but none of this work could be advertised and submitted to bidders until the city secured title to property. Where a number of buildings were purchased, they could not be removed owing to the conditions of purchase in many instances, such as the tenant being granted the privilege of remaining in the building for a definite time, or further, a building purchased in a row would have a building on either side and occupied, to which the city had not title, and removing the one would endanger the others. Just as soon as the Harbor Board feel that they have secured a sufficient amount of property to warrant advertising for the removal of buildings, such a contract will be entered into and the buildings demolished as rapidly as possible. Even after the buildings have been removed, all

of the underground work must be first installed before we can proceed with the paving, this including sanitary and storm water sewers, water mains, gas mains and electrical conduits. All departments and corporations have been notified of the proposed work and supplied with a plan, requesting them to locate any proposed work that they wish to have installed in the bed of the street, so that there will be no unnecessary delay in the installation of this underground work, as soon as the site is cleared.

The second section of the proposed commercial highway was approved by the Harbor Board under date of May 9, 1911, but to date has not been approved by the Board of Estimates, as provided for by Chapter 485 of the Acts of 1910 of the General Assembly of Maryland.

We feel that it would be very much to the interests of the city to have the second section approved and condemnation plat prepared and turned over to the Commissioners for Opening Streets and the property condemned, as it is possible that there will be a sufficient amount of money remaining out of the $2,000,000 loan, after the first section of the commercial highway and the recreation pier in East Baltimore are completed, to pay for the property in the second section.

East Baltimore—What has been said in reference to the purchase of property for the commercial highway in South Baltimore, may also be said in connection with the property needed for the commercial and recreation pier east of Broadway and south of Thames street.

While there was no property actually bought in 1911, there were a number of agreements of sale entered into between the city and the property-owners. The reason no property was actually acquired during this year, was owing to the fact that all of the property needed was occupied and in use and under lease. As it was quite evident that some of the property in question would have to be condemned, and as little or no work could be accomplished until the city virtually owned it

all, this Department felt it would be poor policy, at a very large additional cost, to close deals for the property six or eight months prior to the time that they would get acquisition to it as a whole.

Condemnation plats were furnished the Commissioners for Opening Streets by this Department under date of November 23, 1911, and they were requested to proceed with the condemnation as soon as possible.

PRATT STREET BRIDGE.

Contract for the construction of Pratt Street Bridge was awarded September 7, 1910, the same to have been completed in 150 working days. Work was started October 5, 1910, but owing to a number of causes the progress of the work has been extremely slow.

The property needed for the widening of Pratt street east of the Falls was, by ordinance, to be acquired by a committee consisting of the Mayor, the City Comptroller and the Harbor Engineer, and in the event of failure on the part of this committee to purchase the property by private sale, the same was to be condemned by the Commissioners for Opening Streets. Here again we would like to state that the acquisition of property by private sale in no way delayed the final purchase of the property, for while titles were being searched and a condemnation plan prepared, which had to be done prior to the beginning of condemnation proceedings, the committee were endeavoring to enter into agreements with the respective owners and, as on the south side as well as in East Baltimore, instead of being a delay to the final acquisition of the property, it has to the contrary helped the Commissioners for Opening Streets very materially in making their awards.

The bridge was started before all of the property had been purchased by the city, and so far as this Department is concerned, everything that could have been done to advance the interests of the work was done.

While the delay of the contractor to complete the work in the specified time has been a source of regret to this Department, on the other hand, it may be said that it has caused no direct inconvenience to the traveling public. We say this for the reason that during the construction work on the new bridge the traffic over the old bridge was in no way interfered with, and before traffic on the old bridge is stopped there will be more room and less congestion on the new section than there ever was on the old bridge.

There are a number of conditions that must be taken into consideration treating on this delay, but we feel it advisable to discuss this in a later report, depending upon the progress made from this date.

There were two recommendations of the Harbor Engineer to the members of the Harbor Board embodied in the annual report of 1910, which we most heartily endorse, the one being the construction of a belt line railroad around the harbor of Baltimore, the same to connect with each and all of the railroad lines entering the city, the establishment of freight yards at points along the belt line from where freight can be distributed. Such a line to run, as far as possible, over the present tracks in the bed of streets and, where necessary, new tracks be laid. The belt line to be controlled by the Mayor and City Council of Baltimore. We feel this to be of equal importance as a further development of the water front by means of the construction of piers. All of the municipal piers should be so located and constructed as to enable the lessees the privilege of transporting freight either by water or rail, and not restrict them to the hauling of freight over any one line, but by means of the belt line give them the advantage of shipping over that line having the most direct routes and over which they can secure the best rates.

The other recommendation made by the Harbor Engineer in his report of 1910 and which we deem well worthy of con-

sideration, is the improving, or making navigable our small streams. This is more or less a State improvement and the cost of the same we feel should be borne by the State.

There is no reason why the Patapsco River should not be made navigable from Baltimore to Relay, at a nominal cost, and the same would open to water transportation all of that vast and rich territory on either side of this river.

Likewise, Gwynn's Falls could be made navigable from Baltimore inland about three miles, at a nominal cost. The opening of these two streams would add nearly thirty miles of water front to industrial plants.

In conclusion, we wish to extend to His Honor the Mayor our sincere appreciation of his untold energy and hearty cooperation with this Department in our efforts to produce results and handle the Department on an economical and business basis.

Respectfully submitted,

OSCAR F. LACKEY,
WILLIAM D. SANNER,
JAMES S. ARMIGER,
WILLIAM G. KNAPP,
MARCELLUS H. GOODRICH,
Harbor Board.

TABLES

PUBLIC WHARVES AND DOCKS (See pages 31-33).

Piers 1, 2, 3, 4, 5, 6, 7 and 8, and Small Pier; Pratt Street Bulkhead; East Falls Avenue Bulkhead; Dredging (Channel Wills Street to Light Street, Etc.)

EXPENDITURES.

1904	$3,013 19
1905	5,659 39
1906	111,335 13
1907	205,767 97
1908	501,760 30
1909	*646,533 98
1910	†359,271 31
1911	224,280 86
Construction (Harbor Board)	$2,057,622 13
Property (Burnt District Commission)	3,199,883 97
Total	$5,257,506 10

*Includes appropriation for small pier ($600).
†Omitted, account recreation pier ($30.05).

PUBLIC WHARVES AND DOCKS (See page 30.)

ITEMS.	567 ft. of Bulkhead, Pratt St., from Light.	Pier 1.	Pier 2.	Pier 3.
Administration and engineering	$3,723 16	$10,022 69	$11,586 41	$13,562 80
Property	.....	264,133 34	516,492 85	384,021 75
Construction—				
Contract	.....	51,184 76	58,993 58	64,215 64
Extra work	1,968 67	29,758 28	34,786 93	40,021 00
Pratt Street Bulkhead	28,522 98	7,579 58	7,579 58	7,579 58
Dredging—				
Contract	.....	19,774 30	24,523 50	35,035 60
Extra	.....	3,352 52	3,954 19	4,867 04
Paving, curbing, etc	.....	59 50	12,643 70	.....
Gross total	$34,214 81	$385,864 97	$670,560 74	$549,303 41
Credit	39 69	.....	11,381 28	7,670 28
Net total	$34,175 12	$385,864 97	$659,179 46	$541,633 13

PUBLIC WHARVES AND DOCKS (See page 30.)

Items.	Pier 4.	Pier 5.	Pier 6.	East Falls Avenue.
Administration and engineering	$20,756 15	$19,045 82	$22,001 02	$16,239 46
Property	194,284 02	889,588 25	951,363 76	.....
Construction—				
Contract	239,615 01	243,035 14	280,515 36	183,165 98
Extra work	2,125 15	1,575 52	2,459 79	1,074 72
Pratt Street Bulkhead	7,280 39	5,784 44	2,293 88	.....
Dredging—				
Contract	39,140 40	84,960 48	169,577 76	19,076 40
Extra	82 50	48 75	.....	.....
Paving, curbing, etc	37,527 84	18,464 45	49,008 49	.....
Gross total	$540,811 46	$1,262,502 85	$1,477,220 06	$219,556 56
Credit	303 00	7,830 31	8,937 86	.....
Net total	$540,508 46	$1,254,672 54	$1,468,282 20	$219,556 56

PUBLIC WHARVES AND DOCKS (See page 30.)

Items.	Pier 7.	Pier 8.	Small Pier, Calvert Street.	Wills Street Channel.	Office Building, Pier 4.	Dredging Jones' Falls.
Administration and engineering	$479 95	$560 62	$66 85	$1,638 25	.....	$172 25
Construction—						
Contract	18,240 24	22,901 00	.....	.....	.....	.....
Extra	*1,562 39	49 66	796 38	.....	$4,867 20	.....
Dredging—						
Contract	.....	.....	.....	60,424 60	.....	5,711 85
Gross total	$20,282 58	$23,511 28	$863 23	$62 062 85	$4,867 20	$5,884 10

*Of this, $1,512.73 account fireboat.

HARBOR.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Unexpended balance of 1910			$1,965 43
Ordinance No. 590, December 2, 1910			40,657 00
Expenditures.			
Maryland Dredging and Contracting Co.: 178,734 cubic yards at 15 cents		$26,810 10	
Advertising		75 07	
Supervision of dredging		2,136 76	
Surveys		3,502 37	
Derrick scow		1,965 43	
Anchorage buoys		524 68	
Department shed		414 85	
Department launch		2 33	
Harbor patrol		112 04	
Account harbor tube		6 10	
Tug "Baltimore"—			
Crew	$5,212 00		
Fuel	667 61		
Repairs	708 91		
Steamboat supplies	465 47		
Subsistence	17 64		
		7,071 63	
Unexpended balance		1 07	
Totals		$42,622 43	$42,622 43

SALARIES.

Year Ended December 31, 1911.	Dr.	Cr.
Appropriation.		
Ordinance No. 590, December 2, 1910		$6,086 67
Expenditures.		
Salaries	$6,084 01	
Unexpended balance	2 66	
Totals	$6,086 67	$6,086 67

ICEBOATS.

Year Ended December 31, 1911.			Dr.	Cr.
Appropriation.				
Ordinance No. 590, December 2, 1910				$20,030 00
Acts 1910, Chapter 409				5,000 00
Received for cost of excursion				75 00
Expenditures.				
	"Annapolis."	*"Latrobe."*		
Advertising	$34 01	$34 00		
Crew	6,713 43	8,705 08		
Fuel	457 35	474 72		
Steamboat supplies	728 74	526 38		
Repairs	2,037 94	3,829 98		
Subsistence	191 28	84 24		
Department launch	124 10	.....		
Capstan	263 00	.....		
Windlass	610 12	.....		
Telephone	7 70	7 70		
Searchlight	.....	271 50		
	$11,167 67	$13,933 60	$25,101 27	
Unexpended balance			3 73	
Totals			$25,105 00	$25,105 00

LEAGUE CITY PLANNING.

Year Ended December 31, 1911.	Dr.	Cr.
Appropriation.		
From Contingent Fund		$200 00
Expenditures.		
Photographs (harbor scenes)	$200 00	
	$200 00	$200 00

INCIDENTALS.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Ordinance No. 590, December 2, 1910			$500 00
Expenditures.			
Oaths	$5 25		
Postage	10 00		
Books for office	7 00		
Trip to Philadelphia (city planning)	30 85		
Picture frames	3 50		
Telegrams and telephone	99		
Engineering papers	4 50		
Annual report	146 80		
Typewriter	50		
Clerk's bond	6 25		
Expressage	75		
Meals	3 90		
Cigars for Board	70 25		
Lunch (Board meetings on boat)	205 55		
		$496 09	
Unexpended balance		3 91	
Totals		$500 00	$500 00

REMOVAL OF ASHES.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Ordinance No. 590, December 2, 1910			$1,100 00
Expenditures.			
Repairs	$152 78		
Supplies	29 76		
New boat	24 00		
Supervision of scow and dump	600 00		
		$806 54	
Unexpended balance		293 46	
Totals		$1,100 00	$1,100 00

REMOVAL OF FLOATING MATTER.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Ordinance No. 590, December 2, 1910			$1,935 00
Expenditures.			
Wages		$1,889 49	
Outfit		41 32	
Unexpended balance		4 19	
Totals		$1,935 00	$1,935 00

LIGHT STREET BRIDGE.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Ordinance No. 590, December 2, 1910			$7,019 00
Received for repairs to bridge (U. R. & E. Co.)			63 04
Expenditures.			
Advertising	$70 52		
Lights	283 90		
Wages	4,372 44		
Repairs	1,810 55		
Supplies	166 32		
Fuel	378 31		
		$7,082 04	
Totals		$7,082 04	$7,082 04

REPAIRS OF WHARVES.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Unexpended balance of 1910			$1,784 80
Ordinance No. 590, December 2, 1910			9,560 00
Deposited as per page 45			1,557 73
Expenditures.			
Advertising	$20 93		
Lumber	225 18		
Tools	171 69		
Pier No. 8	105 10		
Garbage dump	1,325 67		
Repairs, Back Basin	1,909 02		
Derrick scow	3,836 99		
Bulkhead, Marine Hospital	13 34		
Department launch	77 37		
Repairs, Quarantine	18 51		
Small pier, foot of Calvert street	248 37		
Light Street Bridge	2,569 84		
Supervision	1,200 00		
		$11,722 01	
Unexpended balance		1,180 52	
Totals		$12,902 53	$12,902 53

PUBLIC WHARVES AND DOCKS.

Year Ended December 31, 1911.			Dr.	Cr.
Appropriation.				
Available for 1911				*$236,366 27
Expenditures.				
†Construction—				
Launch "Major":				
Repairs	$239 84			
Supplies	397 91			
		$637 75		
Engineering supplies		184 31		
Dredging supplies		19 05		
Changing cleats, Pier No. 5		31 66		
Cutting bulkhead, Pier No. 6		6 32		
Repairing valve, Pier No. 5		11 79		
Repairing bulkhead, Pier No. 5		188 30		
Repairing fenders, East Falls avenue and Piers Nos. 4, 5 and 6		250 83		
Paving Pier No. 4 (City Engineer's Department)		312 98		
Paving Pier No. 5		115 40		
Paving Pier No. 6 (D. V. Ault & Co.)		7,049 34		
Paving Pier No. 6, extra		20 90		
Paving Pier No. 1		59 50		
Painting fence, Pratt street bulkhead		50 00		
Pure food exhibit		123 34		
Soundings, Jones' Falls		18 33		
Soundings, Piers Nos. 1 to 6		38 00		
Dredging Jones' Falls		5,884 10		
Dredging docks (Pratt street)		529 50		
Filing cases in vault		433 85		
Stamps		10 00		
Operator for lantern		10 00		
Annex Office—				
Repairs	$52 68			
Telephone	42 00			
Towel service	22 50			
Heat	50 00			
Supplies	21 89			
		189 07		
Work on Pier No. 2 for Standard Oil Company		150 45		
Sanford & Brooks Company		200,652 97		
			$216,977 74	
†Salaries—				
Engineers		$3,803 33		
Inspectors, transit party, etc.		2,774 00		
Dredging supervision		2,193 19		
Draughtsman and computer		1,908 00		
Stenographer		1,080 00		
Launch "Major"		420 66		
Watchmen		680 00		
Office work		112 50		
			12,971 68	
Unexpended balance			6,416 85	
Totals			$236,366 27	$236,366 27

*Amount deposited not included (see page 45).

†Administration and engineering to amount of $5,668.56 is properly chargeable to "Recreation Pier and South Side Harbor."

RECREATION PIER.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Ordinance No. 590, December 2, 1910			$400,000 00
**Expenditures.*			
Title examining, recording, etc.	$2,848 48		
Advertising	12 95		
Engineering supplies	34 15		
Printing	6 50		
Stamps	5 00		
Test piles	94 84		
Engineers, rodmen, etc.	264 34		
		$3,266 26	
Balance carried forward		396,733 74	
Totals		$400,000 00	$400,000 00

*See Public Wharves and Docks (page 40).

SOUTH SIDE HARBOR.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Ordinance No. 590, December 2, 1910			$300,000 00
Received for rents			830 46
**Expenditures.*			
Property	$142,630 16		
Title examining, recording, etc.	4,720 77		
Engineering supplies	94 15		
Printing	6 50		
Stamps	5 00		
Test holes	510 81		
Advertising	102 66		
Lunch (special Board meeting)	12 35		
Engineers, inspectors, etc.	452 67		
		$148,535 07	
Balance carried forward		152,295 39	
Totals		$300,830 46	$300 830 46

*See Public Wharves and Docks (page 40).

WIDENING OF PRATT STREET.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Ordinance No. 590, December 2, 1910			$185,000 00
Received for rent			163 20
Expenditures.			
Property	$57,545 63		
Damages (closing East Falls avenue)	400 00		
Testing materials	91 80		
Engineering supplies	40 35		
Engineers, rodmen, etc	736 00		
Inspectors	1,827 50		
D. V. Ault & Co	18,811 84		
		$79,453 12	
Balance carried forward		105,710 08	
Totals		$185,163 20	$185,163 20

BULKHEAD OLD MARINE HOSPITAL.

Year Ended December 31, 1911.		Dr.	Cr.
Appropriation.			
Ordinance No. 590, December 2, 1910			$18,000 00
Expenditures.			
Advertising	$39 53		
Engineering supplies	4 98		
Supervision	751 83		
McLean Contracting Company	11,401 58		
		$12,197 92	
Unexpended balance		5,802 08	
Totals		$18,000 00	$18,000 00

DEPOSITED IN CITY TREASURY.

Account Public Wharves and Docks—		
Construction:		
Received from Standard Oil Company	$157 88	
Pratt Street:		
Receiver for rent	163 20	
South Side Harbor:		
Received for rent	830 46	
		$1,151 54
Account Repairs of Wharves—		
Received from Street Cleaning Department for repairs to garbage dump	$1,545 67	
For allowance on bucket for derrick scow	12 06	
		1,557 73
Account Iceboats—		
Received for excursion on August 18		75 00
Account Light Street Bridge—		
Received from United Railways and Electric Company for repairs to Light Street Bridge		63 04
Revenue Account—		
From sale of junk	$22 85	
From sale of harbor maps	25 25	
		48 10
Total		$2,895 41

Respectfully submitted,

JAMES H. IRVIN, *Clerk.*

Approved:

O. F. LACKEY, *Harbor Engineer.*

ANNUAL REPORT

OF THE

Sub-Department of Health

DEPARTMENT OF PUBLIC SAFETY

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDED DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

OFFICERS AND EMPLOYEES

OF THE

DEPARTMENT OF PUBLIC SAFETY

SUB-DEPARTMENT OF HEALTH

JAMES BOSLEY, M. D.....Commissioner of Health
C. HAMPSON JONES, M. D.....Assistant Commissioner of Health
M. HARRY LAIB.....Secretary
CHARLES W. BUSICK.....Clerk to Bureau of Vital Statistics
ARTHUR D. THOMPSON.....Statistician
HARRY C. ANDREWS.....Permit Clerk
ROBERT R. KRAUTER.....Permit Clerk
VICTOR DENNIS.....Commissioner's Clerk
GEORGE C. WEDDERBURN.....Registrar's Clerk
HOWARD A. MOORE.....Complaint Clerk
JAMES J. O'MEARA.....Index Clerk
N. G. KEIRLE, M. D.....Medical Examiner
HENRY G. BRANHAM, M. D.....Assistant Medical Examiner
W. P. STUBBS, M. D.....Throat Inspector
B. P. HERZOG, M. D.....Throat Inspector
WILLIAM ROYAL STOKES, M.D.....Bacteriologist
F. W. HACHTEL, M.D.....Assistant Bacteriologist
WILLIAM J. SCHMITZ, M. D.....Assistant Bacteriologist
JOHN A. CAMPBELL, (6½ months, 7 days).....Laboratory Clerk
HARRY J. CAMPBELL (5 months).....Laboratory Clerk
EDWARD F. KELLY.....Collector for Laboratory
G. HARRY RUSH.....Laboratory Assistant
WILLIAM A. GUNTHER (6 months).....Laboratory Assistant
VERNON CLAGES (6 months).....Laboratory Assistant
GEORGE CONSIDINE.....Laboratory Assistant
CHARLES MCLAUGHLIN (8½ months).....Laboratory Assistant
HARRY MALONEY (3 months).....Laboratory Assistant
FRED. C. BLANCK (11½ months).....Chemist
WILLIAM E. HOFFMAN, JR. (½ month).....Chemist
C. CLIFTON HOWES.....Assistant Chemist
CHARLES O. BOWMAN (6 months).....Assistant Chemist
RAYMOND FREAS (7 months).....Assistant Chemist
WILLIAM MCGINNIES (7 months).....Laboratory Assistant
L. J. HOUGHTON, JR. (2 months).....Laboratory Assistant

Charles McLaughlin (3 months)	Laboratory Assistant
Michael Gahan (9 months)	Chemical Laboratory
Walter Wright (½ month)	Chemical Laboratory Clerk
Harry J. Ward (2 months)	Chemical Laboratory Clerk
William P. Palmer	Chief Food Inspector
Charles Knell	Food Inspector
Philip T. Meagher	Food Inspector
W. B. Roth	Food Inspector
George J. Fischer	Food Inspector
Rudolph Bolard (11½ months)	Food Inspector
August H. Ritmiller (½ month)	Food Inspector
Joseph Sapp	Food Inspector
James E. Hood	Food Inspector
George H. Lentz	Food Inspector
Michael J. Buckley	Food Inspector
John Behr	Food Inspector
George A. Brady	Food Inspector
Rudolph Weber	Inspector of Bakeries
George F. Schultz	Inspector of Cow Stables
Catherine Kilfoyle	Stenographer
Ola Tracey	Telephone Operator
William H. Davenport	Chief Tenement House Inspector
C. E. Downes, M. D. (6½ months)	Tenement House Inspector
John A. Kelly (5½ months)	Tenement House Inspector
Abraham Lasch	Tenement House Inspector
Charles I. Putts, Jr.	Inspector of Plumbing
John Ward	Inspector of Plumbing
John J. Gessler	Assistant Inspector of Plumbing
Albert Share	Assistant Inspector of Plumbing
Henry H. Smith	Assistant Inspector of Plumbing
Robert A. Reed	Assistant Inspector of Plumbing
William E. Dorsey	Assistant Inspector of Plumbing
Michael J. Gorman	Assistant Inspector of Plumbing
Henry Kohlerman	Assistant Inspector of Plumbing
William C. Frosburg	Assistant Inspector of Plumbing
Francis A. Ebberts	Drain Inspector
Frank B. Wood	Clerk to Plumbing Division
Edward Thompson	Nuisance Clerk
William B. Woodall	Fumigation Clerk
August H. Ritmiller	Superintendent of Morgue
P. R. Glynn (9 days)	Superintendent of Morgue
George W. Phillips	Fumigator
Joseph Fitzsimmons	Fumigator
William W. Stanton	Fumigator

MEYER RAITZYK.....Fumigator
RUDOLPH BOLARD (½ month).....Fumigator
H. G. SEIDELL.....Fumigator
THOMAS FREEZE (11 months).....Driver
OTIS K. PEASE (½ month).....Driver
JAMES L. FITZPATRICK (½ month).....Driver
WILLIAM C. CONNER (11 months).....Driver
WILLIAM M. BUCHEIMER (25 days).....Driver
THOMAS DALY.....Driver
LUCY I. COWELL.....Statistical Clerk

QUARANTINE STATION

THOMAS L. RICHARDSON, M.D.....Assistant Commissioner of Health
T. W. CLARK, M. D. (6 months, 5 days)..Assistant Resident Physician
A. D. DRISCOLL (5½ months, 4 days)....Assistant Resident Physician
JAMES C. EVANS.....Captain of Tugboat No. 1
WILLIAM T. GREEN.....Captain of Tugboat No. 2
JOHN KELLNER.....Engineer of Tugboat No. 1
BERNARD E. ECKERT.....Engineer of Tugboat No. 2
JOHN L. SMITH.....Fireman of Tugboat No. 1
GEORGE W. BEVANS (½ month).....Fireman of Tugboat No. 2
WILLIAM J. SHADRICK (1 month).....Fireman of Tugboat No. 2
THOMAS L. BARRETT (8 days).....Fireman of Tugboat No. 2
PATRICK MCCAULEY (10 months, 5 days)..Fireman of Tugboat No. 2
BERNARD MCMAHON.....Deckhand of Tugboat
GEORGE W. BEVANS.....Deckhand of Tugboat
GEORGE M. STREEPER.....Messenger
JOHN L. MATTHU.....Gardener
M. T. ARMACOST.....Nurse
HENRIETTA BLACKWELL.....Cook
ALISHIA BROWN (3½ months).....Laundress
JOSEPHINE BROOKS (1 month).....Laundress
ANNIE CONNER (1 month, 7 days).....Laundress
HATTIE GASWAY (1½ months, 4 days).....Laundress
FANNIE TOOMEY (1 month, 18 days).....Laundress
SARAH COOK (2½ months).....Laundress
LAURA DOBSON.....Extra Nurse
ELLEN BROWN.....Extra Nurse
ANNIE CONNER.....Extra Nurse
ANNIE M. PALMER (7 months, 7 days).....Leper Nurse

SYDENHAM HOSPITAL

W. P. Morrill, M.D. ..... Superintendent
J. S. Brotherhood, M. D. (2 months) ..... Assistant Physician
R. W. Reynolds, M. D. (4½ months, 9 days) ..... Assistant Physician
J. E. Quigley, M. D. (5 months, 6 days) ..... Assistant Physician
I. P. Kammerer ..... Superintendent of Nurses
Chlorinda Thompson (1 month, 12 days) ..... Nurse
Kathleen West (4 months, 2 days) ..... Nurse
Julia Kensinger (4 months, 13 days) ..... Nurse
Nellie E. Cook (7 months, 2 days) ..... Nurse
Clara M. Case (4 months, 8 days) ..... Nurse
Margaret H. Henderson (2½ months) ..... Nurse
Chlorinda Thompson (3½ months) ..... Nurse
Florence Madgeburg (3½ months) ..... Nurse
Harriet S. Cooper (7 months, 2 days) ..... Nurse
Adele Scudder (4 months, 12 days) ..... Nurse
Carrie E. Pangle (7 months, 2 days) ..... Nurse
Zeta Shaw (34 days) ..... Nurse
Clara B. Case (9 days) ..... Nurse
Louise Morstatt (5 months) ..... Nurse
Kate Roberts (6 weeks, 3 days) ..... Special Nurse
M. Field (15 days) ..... Special Nurse
I. M. Kersey (4 months, 24 days) ..... Special Nurse
Sarah Mearns (21 days) ..... Special Nurse
Ruth K. Jones (3 days) ..... Special Nurse
Mary L. Winter (1½ months, 8 days) ..... Supervisor
Leroy Knachel (4 months, 10 days) ..... Clerk
Edgar Fay (7 months, 9 days) ..... Clerk
Mary Kennedy ..... Cook
Ella Rockel ..... Laundress
Mary Straughn ..... Maid
Margaret Glenn ..... Maid
Anna Hutchins (5½ months, 1 day) ..... Maid
Sophia Beyer (4 months, 1 day) ..... Maid
Edward Vogler (11 months) ..... Orderly
Edward Meehan (1 month) ..... Orderly
Nicholas Sterner (1 month) ..... Orderly
Michael Holloran (11 months) ..... Orderly
William Beeke ..... Driver
Bode McLain (½ month) ..... Laborer
John J. Sterner (½ month) ..... Laborer
James Keller (1 month, 29 days) ..... Laborer
George Trice (9 months) ..... Laborer
John Burns ..... Messenger

PUBLIC SCHOOL INSPECTION

H. Warren Buckler, M.D.....Medical Examiner of Schools
I. R. Page, M.D.....Medical Examiner of Schools
J. Howard Iglehart, M.D.....Medical Examiner of Schools
G. A. Thiede, M. D. (8 months).....Medical Examiner of Schools
A. K. Bond, M. D. (3½ months).....Medical Examiner of Schools
Richard A. Urquhart, M.D.....Medical Examiner of Schools
Virginia B. Lorentz.....School Nurse
Marie A. Gorter.....School Nurse
Sally L. Jean.....School Nurse
Henrietta E. Knorr.....School Nurse
Agnes P. Kloman.....School Nurse

HEALTH WARDENS

Ward 1—Oscar L. Long, M. D.....Health Warden
Ward 2—H. E. Laroque, M. D. (10½ months).....Health Warden
Ward 2—John Roth, M. D. (2 months).....Health Warden
Ward 3—Augustine Palmisano, M. D.....Health Warden
Ward 4—H. K. Gorsuch, M. D.....Health Warden
Ward 5—J. E. Heard, M. D. (12½ months).....Health Warden
Ward 6—J. T. Spicknall, M. D.....Health Warden
Ward 7—A. L. Rettaliata, M. D.....Health Warden
Ward 7—William J. Schmitz, M. D. (7 days).....Health Warden
Ward 8—J. W. France, M. D.....Health Warden
Ward 9—C. T. Buckner, M. D.....Health Warden
Ward 10—E. H. Hayward, M. D.....Health Warden
Ward 11—N. E. B. Iglehart, M. D. (7 months).....Health Warden
Ward 11—C. E. Downes, M. D. (5½ months).....Health Warden
Ward 12—E. A. Munoz, M. D.....Health Warden
Ward 13—V. F. Kelly, M. D.....Health Warden
Ward 14—William Caspari, M. D.....Health Warden
Ward 15—W. DeF. Olmstead, M. D.....Health Warden
Ward 16—George B. Scholl, M. D. (8½ months)...Health Warden
Ward 16—G. A. Thiede, M. D. (4 months).....Health Warden
Ward 17—G. W. Hemmeter, M. D.....Health Warden
Ward 18—R. A. Warner, M. D.....Health Warden
Ward 19—M. G. Smith, M. D.....Health Warden
Ward 20—H. J. Hahn, M. D.....Health Warden
Ward 21—Alexander E. Muse, M. D.....Health Warden
Ward 22—J. E. Poulton, M. D.....Health Warden
Ward 23—C. P. Erken-Brack, M. D.....Health Warden
Ward 24—J. L. Turlington, M. D.....Health Warden

TUBERCULOSIS DIVISION

Ellen N. LaMotte (8 months).....Nurse in Charge
Elizabeth C. Lee (4 months).....Nurse in Charge
Elizabeth C. Lee (8 months).....Tuberculosis Nurse
Rebecca M. Coale.....Tuberculosis Nurse
Julia G. Reid (1 month).....Tuberculosis Nurse
Mary L. Kelly (10 months, 29 days).....Tuberculosis Nurse
Lillian Oeligrath (11½ months, 4 days).....Tuberculosis Nurse
Jennie B. Newman.....Tuberculosis Nurse
Margaret Kennedy.....Tuberculosis Nurse
K. M. Nash (11 months, 27 days).....Tuberculosis Nurse
Annie L. Murphy (6 months, 28 days).....Tuberculosis Nurse
Nancy M. MacNabb (2½ months).....Tuberculosis Nurse
Ida L. Lilly.....Tuberculosis Nurse
Hattie B. Clements (5 months).....Tuberculosis Nurse
Cecelia Sweitzer (5 months).....Tuberculosis Nurse
Marion I. Luby (2 months).....Tuberculosis Nurse
Annie D. Winters (2½ months).....Tuberculosis Nurse
L. M. Schroeder (5 months).....Tuberculosis Nurse
Lillian Harmison (4½ months).....Tuberculosis Nurse
Lena B. Price (7 months, 13 days).....Tuberculosis Nurse
Ellen M. Hellier.....Tuberculosis Nurse
Rosalie C. Levelle.....Tuberculosis Nurse
Helen Bacon.....Tuberculosis Nurse
Sally L. Jean (2 months, 1910).....Playground Nurse
Mary T. Smith (2 months, 1910).....Playground Nurse
Sally L. Jean (2 months, 1911).....Playground Nurse
Henrietta E. Knorr (2 months, 1911).....Playground Nurse

REPORT

OF THE

COMMISSIONER OF HEALTH

REPORT

BALTIMORE, January 1, 1912.

To the Honorable Mayor and City Council.

DEAR SIRS:

I submit for your consideration the following annual report of the Sub-Department of Health for the year 1911, ending December 31.

The total number of deaths during the year was 10,404, which includes 500 non-residents who died in hospitals (455), asylums, etc. (41), and penal institutions (4).

The total death rate, based on the estimated mid-year (July 1) population of 564,545, was as follows:

		Deaths.	Death Rate per 1,000.
Total population	*564,545	10,404	18.43
White population	*478,795	7,759	16.21
Colored population	* 85,750	2,645	30.84

In 1910 the death rates were as follows:

		Deaths.	Death Rate per 1,000.
Total population	559,529	10,753	19.02
White population	474,319	8,146	17.17
Colored population	85,210	2,607	30.60

The Federal Census returns for the year 1910 showed that our city had not increased in population as rapidly as it did in the inter-censal period, 1891-1900. Instead of increasing 7,500 each year, which was the average increase of population during the last inter-censal period, we increased only 5,016

*Estimated to July 1, 1911.

each year since 1900. This was greatly if not entirely due to our suburban development. It, therefore, makes it necessary that we revise our death rates back to 1900 in order to make a just comparison of them.

	Per 1,000 of Population.
1901	20.37
1902	19.74
1903	19.34
1904	20.43
1905	20.01
1906	19.93
1907	20.55
1908	18.99
1909	18.71
1910	19.22
1911	18.42

TYPHOID FEVER.

This subject has been so frequently brought before you that one fears that its importance might not attract your attention, but this time we feel that we can safely say that two important factors in the distribution of the disease in this city are soon to be things of the past, i. e., privy wells and polluted drinking water.

During the past ten years, 1902 to 1911, inclusive, there have been reported 12,008 cases of typhoid fever and 1,923 deaths, an average for each year of 1,201 cases reported, and 192 deaths. This shows a percentage death rate of 15.99, which in all probability is much too high, as it is generally accepted that a 10 per cent. death rate is a fair average. If the latter death rate usually prevails, then instead of having had only 12,008 cases during the past ten years we really had 19,380 cases. It is gratifying to note, however, that the reporting of cases has much improved, as is evidenced by the records of 1910 and 1911, when 3,092 cases were reported and 389 deaths, or a percentage of 12.58.

THE NEW SANITARY SEWERAGE SYSTEM.

As stated above, we are expecting a reduction in the number of typhoid fever cases by the removal of open privies. The sanitary sewerage system is rapidly approaching completion, which will finally remove from our city the many thousands of privies that are certainly menaces to health, and probably directly or indirectly are distributors of typhoid fever. The construction of the house laterals have been begun by the Sewerage Commission, which has brought the work into the jurisdiction of this Department, i. e., the connection of the house drains to the sewers and the changes made necessary of the interior plumbing work in very many houses. In order to meet this increase of work our plumbing division was increased by two inspectors and one clerk. The house connections were begun late in the year, but there were comparatively few connected before winter weather practically put a stop to the work. Owners of 3,380 properties were notified to connect up in Sewerage Districts Nos. 25, 28, 27, 34-A and 35, all located in the northeast section of the city. This work is to be commenced as soon as the season permits. This work might be considered as that belonging to the regular development of our sewerage system, but a similar work has been done in the northwest section of the city in developing the experimental plant located between the Western Maryland Railroad and Bloomingdale road. With this plant are connected 389 properties in Walbrook, which makes that section complete as far as these properties are concerned. In addition to this, much work has been done also in the northwest section at the suggestion of this Department, which resulted in the establishing of another disposal plant, which has not only done away with privies and much surface drainage, but has also permitted the development of that section by providing an outlet for house drainage and thus prevented nuisances.

All of this work goes to make the typhoid situation much improved and within the period of the next two years this source of the fever will be practically removed from the city.

IMPROVED WATER SUPPLY.

To those officials and citizens who have been in touch with the development of the suburban districts, more particularly those located to the north of the city, it became more and more apparent that grave danger threatened the city by the ever increasing pollution of our water supply due to the drainage from suburban homes finding its way directly or indirectly into our water supply. Therefore, the decision to put a filter plant between the impounding reservoirs and the storage lakes coupled with the abandonment of the Jones' Falls supply is believed to be the beginning of the removal of a second source of typhoid fever in this city. This result is indicated by the preliminary chemical treatment of the water which was begun about June 15 of this year. This chemical treatment consists in the use of the hypochlorite of lime to the extent of six-tenths to one and one-half parts of available chlorine to the 1,000,000 parts of water, the amount varying with the turbidity of the water. This treatment of the water was urged:

First—Because of the typhoid fever record of 1910, when we had not only the highest number (1,891) of cases reported, but also the greatest number of deaths (235) of any year of the past decade.

Second—Because the months of April and May, 1911, were worse in the number of cases than in the year 1910. Indeed, every month of the first five months of this year (1911) showed a decided increase over the corresponding months of 1910, while every month of the last seven months shows a decided decrease in the number of cases reported, and as the chemical treatment was commenced since June 15, we are inclined to

believe that it was the cause of the decrease. The following table shows the actual figures:

	1910.	1911.
January	40	55
February	25	31
March	30	35
April	22	44
May	31	56
June	46	34
July	110	89
August	473	280
September	398	241
October	359	170
November	251	104
December	106	62
Total	1,891	1,201

We can see by this table that during the first five months there was an increase of 175 cases over the same time in 1910, which was a decrease of 763 cases in the last seven months, or a difference for the entire year of 690 cases. It is true that as a rule we have a falling off in the number of cases the year following an epidemic such as we had in 1910, but there are two interesting features to note, i. e., first, that the decrease was coincident with the chemical treatment of the water, and, second, that we do not find the same character or degree of decrease in former years when there was no chemical treatment of the water.

	Cases.	Deaths.
1905	1,019	197
1906	1,215	183
1907	1,417	230
1908	1,426	180
1909	1,069	136
1910	1,891	235
1911	1,201	154

A full account of the hypochlorite treatment is given in the report of the Bacteriological Laboratory.

MILK SUPPLY.

It is probably believed by all that the unguarded milk supply of a city is a source, sometimes a great source, of typhoid fever. While it is true that a "milk typhoid outbreak" is characterized by features such as definiteness of distribution, suddenness of outbreak and age of the victim, yet it must be conceded that there are possibilities in the mode of infection of the milk that make it possible for milk typhoid not to show these features to a marked degree. This must be true when cases of the fever occur in small dairy routes when only one batch of milk is infected and not a continued infection for several days or weeks. This is not only true in typhoid fever, but also with other more or less serious infections that come and go before the infection could be located in the milk. In other words, there are diseases conveyed by milk that are of short duration (as far as the milk is concerned) that cannot be guarded against successfully by any special activity of the Health Department after the outbreak because the source of the infection has vanished. This fact coupled with the great difficulties encountered in keeping the production, transportation and distribution of milk at all times free from the constant danger of filth make us believe that a large city like ours can best be protected only by the proper pasteurization of the milk. We do not mean, however, that pasteurization is to replace the utmost care in the production and distribution of the milk, but that it is apparently the only *additional* safeguard of the general supply that is really effective.

Up to the present time the apparent lessening in the number of deaths in this city of children under a year old seems to have been mainly accomplished by the education of the people brought about by efforts of medical men, social workers and this Department through the press and other agencies.

The deaths of children under one year of age during the past seven years have been as follows:

	Deaths.
1905	2,457
1906	2,418
1907	2,423
1908	2,215
1909	2,227
1910	2,148
1911	1,958

A careful analytical study of these figures has not yet been made, but it is fair to presume that this slight improvement has been mainly amongst those families who can and do heed the warnings.

TUBERCULOSIS.

Another preventable disease that is keeping our death rate high is tuberculosis.

This disease differs so widely from almost all of the known communicable diseases in its relationship to the citizen and the family that its control or eradication will require a greater degree of patience, a greater degree of determination and a greater degree of sacrifice on the part of the citizens than those exotic epidemic diseases that have visited our city in times past. The struggle against this disease brings closer together the social worker and the Health Department. Indeed, the corps of tuberculosis nurses (15) is the direct outgrowth of the work of the Maryland Association for the Prevention and Relief of Tuberculosis. The second annual report of their work is included in this report. This was the first step taken by this Department. The second was taken this autumn by the Board of Estimates in appropriating six thousand dollars for the establishment and maintenance of tuberculosis dispensaries. This work will be commenced next year.

The third step is yet to be taken, i. e., the establishing of a segregating hospital for advanced cases of tuberculosis. Our

nurses have done good work, our dispensaries will do good work. Sanitaria are saving many people, the citizens are receiving instruction by social workers, and the school children are receiving such training that will save many lives in the future, but we feel convinced that until an adequate segregating hospital is established we will not make rapid progress against the disease.

Your attention is called to the special tables on tuberculosis. Table No. 1 gives a comparative death rate amongst the white and colored people.

There are many features of interest in the reports of all of the divisions which can be best appreciated by reading each division report. The work for the entire year has been good.

Yours respectfully,

JAMES BOSLEY, M. D.,
Commissioner of Health.

REPORT

OF THE

ASSISTANT COMMISSIONER OF HEALTH

REPORT

BALTIMORE, July 1, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

The work of the division of our sub-department has been conducted practically the same as in the year 1910.

There were but two notable additions to the workers, i. e., Mr. William P. Palmer, who is the pioneer inspector of the rural dairies for Baltimore, and Mr. W. H. Davenport, who was put in charge of the tenement and lodging house inspections after special training in New York under Veillier.

Mr. Palmer has not made a special report this year, but his work is referred to by Dr. Blanck in the Chemical Laboratory report. In our next annual report will probably be contained a special report by Mr. Palmer, when I hope he will be able to demonstrate some of the good that he has accomplished.

Our experience, in common with the experience of other health departments, in our efforts to improve the condition of the milk supply is that most desirable and permanent results are to be obtained by instruction. It is true that we must occasionally resort to the enforcement of the law and regulations, but this should be the last resort, and in all probability many of those against whom we must proceed legally will finally retire from the milk business.

Mr. Davenport has prepared a comprehensive report on the tenement house work and has shown the development of the work of his division. It is to be hoped that the time is not far distant when the work of this division will form a part

of the "intensive" study of certain sections of our city for the application of remedial measures for the lessening of mortality and morbidity.

MEDICAL INSPECTION OF PUBLIC AND PAROCHIAL SCHOOLS.

There has been no material change in this work. We believe that this year's work has been an improvement over the work of other years in the detail rather than in the character of the work. There is one advance to note, i. e., the confining of the complete routine inspection to the classes below the fifth grade and the following up of defectives only beyond the fourth grade.

SPECIAL TABLES.

The usual tables have been prepared by Miss Cowell. The death rate tables for a number of years for tuberculosis, pneumonia, etc., have been recast in accordance with the last Federal Census (1910).

We have added this year special tables for the "minor" infectious diseases and also tables showing the deaths from marasmus and inanition for the years 1907 to 1911 inclusive.

Yours respectfully,

C. HAMPSON JONES, M. D.,
Assistant Commissioner of Health.

REPORTS

OF THE

Medical Examiners and Nurses of the Public Schools

Report of Dr. H. Warren Buckler.

BALTIMORE, June 8, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I herewith submit my annual report as Medical Inspector in the public schools of Baltimore for the session of October, 1910, to June, 1911. My assignment consists of Groups C, F, L, U, W, and in addition, eight parochial schools.

I have inspected according to the rules of the Department all the children of the public schools through the fourth grade and have re-examined those found defective upon my first visit. In the parochial schools I have examined all children present at the time of visit and have made a reinspection in each of these schools of the defectives. In the public schools my nurse and I have examined 7,918 children, finding 3,654 suffering from one or more of the defects deemed by your Department to be of sufficient importance to warrant notice and treatment. And in the parochial schools I have examined 2,461 children, finding 949 defective.

Not much attention has been paid this year to the general sanitary condition of the school buildings and rooms. In a previous report two years ago, I described in detail the condition of the schools under my supervision, and little or nothing has been done towards their improvement during this period.

With few exceptions they are still maintained in a very unprepossessing condition. The floors and windows are dirty and show few signs of washing. The walls are cracked and soiled, and in many places the plaster has entirely fallen away, showing an urgent need for resurfacing and repainting. The toilet accommodations are offensive and of the most primitive

type. The ventilation in many of the classrooms is bad, often times being left to the individual whims and feelings of the teacher in charge. The heating in these buildings which still use the room stove is irregular and in nearly every case excessive.

I am fully aware of the fact that little can be done to this class of buildings towards modernizing them. They are relics of by-gone days of mismanagement, poor judgment or ignorance, and they must remain as such until the city can afford to replace them with modern school buildings. They can at least be made habitable, however, by better janitor service, stricter regulations regarding ventilation and heating, and a more liberal use of paint and disinfectants. I should also in this connection call your attention to the overcrowded condition of many of the classrooms in these smaller schools. Rules should be made by your Department or the Hygienic Committee of the Department of Education, forbidding more children to be placed in these badly ventilated heated rooms than the cubic air space of the room allows, according to the best rules of modern hygiene.

I am glad to say that the general sanitary condition of the children shows marked improvement. Communicable parasitic filth diseases are now reduced to a minimum, and in many schools are conspicuous only by their absence. In all I reported this year only 277 cases of pediculosis, ringworm, scabies and impetigo, and of these 197 were cured at the time of reinspection. In some of the schools there are numerous children who persistently come to school in an extremely filthy and offensive condition. The presence of such children in a classroom is not only objectionable from a hygienic standpoint, but they also exert a bad influence on the other children induced towards untidiness and tend to lower the whole standard of personal cleanliness of the class. Your Inspector and Nurse have accomplished little in their attempts to improve the sanitary condition of these individuals. Bad home conditions,

neglect, and sometimes poverty are the chief causes of such conditions. Exclusion is useless, as it is welcomed by the pupil and often times by the parent. School baths are the only rational and radical solution, but as these do not seem to be forthcoming, I should recommend that efforts be made to have some of the city's portable baths placed at the disposal of the schools which harbor the greatest number of filthy children. I am given to understand that the Free Bath Commission would gladly co-operate should the request for baths be placed before them in proper form.

I also feel that the individual teachers to an extent could decrease the number of the filthy, were they more insistent upon maintaining a higher standard of personal hygiene among their pupils; I say this because in my visits to the classrooms I note in some instances with satisfaction the cleanly and tidy appearance of the pupils. Such a teacher informs me that she will not have it otherwise, whereas, in adjoining rooms, among children of the same neighborhood, and often times homes, I find conditions anything but pleasing. I should advise that the School Hygiene Committee instruct the teachers in matters pertaining to personal hygiene, and that they set a standard and insist upon its rigid enforcement. Altogether I have reported this year 381 cases of extreme filth distributed chiefly in some half dozen schools.

Doubtless the greatest problem which school authorities have been called upon to solve is how to improve the backward child. Its solution is of vast economic importance as every school department spends large sums every year upon its repeaters. While retardation in studies may be due to many irremedial conditions, I feel convinced from my observations that in numerous instances the medical man can be of great assistance to the educator in solving the problem. During the past session I have made especial study of backward children, taking for my standard those children who have remained for two years or longer in the same grade.

In all I have studied 432 children reported as being backward to the degree just mentioned, and of these 270 were victims of some one or more physical defect that might readily retard their mental development or handicap them in their studies. The remaining 162 were behind in their work as a result of numerous conditions, such as irregular attendance, late starting, alcoholism and neglect in homes and a family history of impaired mentality. Indeed I was suprised to see the number of children in the general classes who are nothing more or less than high-grade imbeciles, some remaining in one grade three, four and even five years.

The commonest physical defect in my series associated with backwardness was impaired vision, the proper correction of which was often followed by satisfactory progress. So impressed have I been with the good results obtained among these backward children following the correction of an eye strain that I feel that in the future work we should carefully test the vision of all children who fail to progress at the normal rate. Adenoid and tonsilar growths have always been regarded as a factor in causing retarded mental development, but in my cases the removal of these abnormalities were not accompanied by such results as I had anticipated, though I hope time will show results now discouraging. I was surprised to note the number of cases of marked malnutrition among the backward group, but it seems reasonable to believe that where the tissues of the body are so poorly nourished, the development and the functions of the organs will of necessity be impaired. Such children would be greatly improved and it is reasonable to believe that in consequence their progress would be nearer the average were they placed in better environment than our present school quarters afford. Of the remaining backward children without remedial defects I see no solution to the problem other than placing them in small classes with especial efficient teachers, or in institutions for the feeble minded. It is a pleasure to note that under our

present efficient school Superintendent much attention is being given to this subject, and classes for backward children are constantly being formed. I know of no condition that will so demoralize a class or discourage a teacher as the presence of one or more of these mentally defectives in the class, and I advise that this work of segregation be pushed as fast as funds will allow.

Another problem that has occupied the attention of your Inspector and Nurse during the past year is the question of the prevalence of tuberculosis in the schools. Through the co-operation of the city tuberculosis nurses, I was enabled to examine every child in my schools that came from an infected home, in which the city nurse was a visitor. In all I examined about 150 children and with few exceptions found them free from any signs or symptoms of active disease.

On the other hand I have reported 360 children whose general physical condition was such as to lead one to suspect that they were tuberculous, the infection for the time being latent. Many of these children (181) had enlarged lympth glands, presumably tuberculosis. Out of this number I sent 50 to the State Tuberculosis Sanatorium who were really in such a depleted condition as to warrant their removal from school. All but ten readily reached to the skin and eye tuberculin tests, though only five had demonstrable lesions in their lungs and could be regarded as a possible menace to others. The question now is: What should be done in the future with this large class of pupils. They should not be kept in the school quarters at present provided for them, nor do I think it justifiable to send them all to some one of our sanatoriums with our present limited supply of beds. The solution of this problem is the prompt establishment of open-air schools along lines similar to these established elsewhere and found practicable. The ideal site would be in the country, and I believe some arrangement could be made with some of our existing children's institutions which close in winter

for lack of funds, whereby school children could be maintained and taught at a cost less than building new buildings for such purposes. A school similar to the present parental school would be satisfactory, and if it came to a choice of one or the other, I should say that the tuberculous are of greater importance than the truant.

What should be one of the most important duties of the medical inspector is the surveillance of these children infected or suspected of being with one of the contagious diseases. In the past we have not been able to give this important question the attention it merits, for the simple reason that our visits to each school twice yearly makes such supervision impossible. During the past winter the prevalence of measles, mumps, and the like, played havoc with the school attendance. In one epidemic of measles I had the opportunity of studying I found that the health regulations of the city were being flagrantly violated. Physicians failed to report cases, and the teachers and principal of the school were in consequence unable to keep children from infected homes out of school. The first day's work of my nurse revealed a large number of cases absolutely unknown to your Department, and subsequent visits showed that only about half the cases were reported. Unless these cases are reported the school principal has no way of ascertaining whether the cause of absence is due to contagious disease and no power to keep children from the same household out of school. The result was that measles was prevalent in the schools for a long period and the work suffered as a result of so many absentees. Inquiry in other schools of my district showed that the school work is seriously hampered by such outbreaks. Now no one believes that contagious diseases can be kept entirely out of the schools, but I do believe that your inspectors could have their work so arranged as to make them take more vigorous measures to keep the school from being the source of contagion.

To do this we should visit the schools at more frequent intervals, and should have a better understanding and closer relationship with the school attendance officers. I should advise that all children reported absent from school by the attendance officer on account of illness should be turned over to the medical inspector and school nurse for further investigation. The adoption of such a plan would be of this additional value in that it would make absence due to fake illness less frequent. From my observations I find that the present school attendance officers, though faithful and conscientious, are often imposed upon by maligners because their past training does not enable them to decide when a child is ill or not. The trained nurse could better do this work and could also be better qualified to instruct the parent as to the quickest means of getting the child well and so back to school. But the most important feature of such a plan would be the detection of hundreds of cases of contagious diseases about which your Department knows nothing, over which we have absolutely no control and from which many new cases develop.

In order that the work of the school inspection should progress along the lines that our work of the past few years have developed, two things are essential: First, more frequent visits to each school, and second, our nursing staff must be increased to at least fifteen nurses.

To put in operation the first recommendation, I should advise that a plan be adopted such as I proposed in my report of last year, whereby the medical inspector visits each of his five school groups on one of the five school days of each week. Before discussing in detail the work of the inspector at such visits I should like to make several additional suggestions.

I should recommend that the routine inspection of all children be discontinued. Those found normal at previous inspections will, it is to be presumed, remain so unless affected by some trouble of recent date which will be properly attended to.

Those found defective and who have failed to take the advice given will be just as likely to do so if new notification cards be given them by the nurse as if they were again inspected. I should also like to see a better understanding with the teachers about our work. Without exception they have co-operated to the best of their knowledge, but few of them really know what the inspector can do. They should be given instructions regarding the visits of the inspector so that they may refer all pupils, who in their judgment, need a physician's examination and they should know when and where such examinations are to be made.

Our work would then be somewhat along these lines: Nurse A, who should be the head of her division, would report at 9 A. M. at the group center on the group day. She should get there, from the different vice-principals of the group, a list of all children needing attention, and a list of all absentees who have been out of school for three consecutive days or longer, giving sickness as the cause of absence. This latter list she should give to Nurses B and C, whose duty in the forenoon would be to investigate these cases. Nurse A should then turn her attention to the first list seeing as many of the children as possible. Many of these she could administer to, herself, in school.

The inspector should report to the group center at the opening of afternoon session. He should see all children on the list of Nurse A who have not been attended to. He should have the sole power of exclusion and should see such excluded children before they return to the class. He should, as far as possible, see all cases who have been at home with some contagious disease, as many children return to school in a still communicable state with a physician's certificate, when upon investigation it is found that the doctor has never even seen the child during or after illness. He should at the outset of the school year inspect, in the usual manner, all new pupils and during the year he should thoroughly test the eyes of

all children of some one grade which, in my opinion, should be the third. He should make a careful study of all backward children and see if any remedial defect is the cause. He should inspect all suspected tuberculosis children, and order to the fresh-air room or school, if there ever is one, all those whom he believes will be benefited by a change. Nurse A should make the rounds with the inspector, whereas, Nurses B and C should devote their entire afternoon to home visiting, dispensaries, physicians, etc. Under such a scheme I believe the school inspection would be of far greater benefit to the community than it is at present.

I have also inspected eight parochial schools, with a total number of 2,461 pupils. With few exceptions, the results have not been as satisfactory as last year. Unless the force of inspectors be increased, I should recommend that in the future the inspection of the parochial schools be discontinued.

I feel that the time has come when the maximum amount of good has been accomplished under the present system with the present limited staff. The scope of our work should widen and become prophylactic as well as therapeutic.

In conclusion, I wish to express to the principal and teachers of the schools in which I work, my deep appreciation of their uniform courtesy and assistance, without which my work would have been more difficult and less efficient. It is a satisfaction to note their growing interest, and many of the suggestions made in this report have emanated from them. I wish also to commend the untiring and faithful way in which my nurse, Miss Jean, has gone about her onerous and manifold duties. Whatever has been accomplished by the school inspection has been due to her efforts and it is unfortunate that all the remote and indirect benefits from her work at the homes cannot be tabulated.

Respectfully submitted,

H. Warren Buckler.

Report of Nurse Miss Sally Lucas Jean.

Assistant to Dr. H. Warren Buckler.

BALTIMORE, June, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

During the school term, from October 1, 1910, to June 1, 1911, I have visited the homes of 1,208 pupils, and have examined 792 children at home. A large proportion of these visits has been made to the homes of children suffering with marked malnutrition. Several visits were required in many cases to ascertain the real cause of the child's condition. Though poverty is frequently the underlying reason, in a surprising number it is ignorance of the sort of food a child's body requires. Such families as were unable to supply the children with proper food were reported to the Federated Charities, and in many cases milk and eggs were supplied for months.

Much time has been given to visiting the homes of backward children, whom Dr. Buckler had found to have some physical defect. Two of these children upon examination in the Johns Hopkins Dispensary were found to have exaggerated cases of eye-strain, and neither child had ever focused properly. Glasses had been provided in one case, but they were not suited to the child's eyes, and were doing more harm than good. Correct lenses were prescribed for both children, and secured, and a decided improvement in the mentality of both children resulted. One child had spent four years in two grades, and the other child five years in the same grades.

Only 73 visits were made to the different dispensaries. Much better results could be obtained if this number were doubled.

During the epidemic of measles in the neighborhood of School No. 60, I made 200 visits to the homes where reported cases were said to be, and prevented unaffected children from attending school from such homes. All cases not reported by the attending physician were reported to your office at once.

About twenty-eight children affected with impetigo, etc., were treated in school under Dr. Buckler's direction, and twenty-six at home. Immediate results were obtained in most cases. Such treatment has meant a great deal at Locust Point especially, where there is no dispensary, and where the people are, in most instances, unable to pay for the services of a physician.

I have assisted Dr. Buckler in examining 10,379 children, 4,063 of whom were found to be defective. The Country Home for Children at Orange Grove has taken thirty-one children, whose names my list has supplied. All of these children have improved as only fresh air and good food can improve a debilitated child. Many more needed this same care, but because of the numerous demands made upon this small institution, it was impossible to accept a large number. The Fresh Air Farm has taken a great many children whose names have been supplied by me. Several children have been reported to the Children's Aid Society, and immediate co-operation secured. Homes for four destitute children were secured through them, and one home on a farm for a boy who had been discharged from the State Sanatorium as an arrested case. The home surroundings of this boy were most unfavorable, and only fresh air and good food could have brought him back to school capable of taking the winter work.

Glasses have been secured for eight children (through the Federated Charities), whose families could not afford to buy them. These children had each had a notification card calling the parents' attention to the eye-strain existing, but until a home visit was made, had not known of the possibility of procuring assistance.

The Social Service Department of Johns Hopkins Hospital has been of the greatest assistance. Any child sent to this department with a note, is referred to the proper clinic, and follow-up care given, so enabling them to return to school in the shortest possible time.

As a whole, the work I have done has not been satisfactory to me, because so much has necessarily been left undone that a school nurse could do. My hope for next year is a large corps of nurses, which will make it possible to follow up all important cases.

Very respectfully submitted,

SALLY LUCAS JEAN.

Report of Dr. I. R. Page.

BALTIMORE, June 1, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

In pursuance of our usual custom I have prepared an annual report of inspection of public and parochial schools for the year, October 1, 1910, to June 1, 1911, and herewith respectfully present it.

We have had the same schools this year as last, viz.: Groups A, B, D, E, G, and eight parochial. The first, second and third examinations of pupils sums up 21,300—15,429 public school children and 5,321 parochial, and 571 vaccinations; the defects, about 7,709. There was a large increase in vermin cases, and special attention was paid by the visiting nurse to those in the schools and at their homes, with very satisfactory results. The other defects are in eyes and throat; skin troubles were much less than hitherto. The work assigned us in this section of the city cannot be performed by *one* visiting nurse, and so we again ask to be allowed, if possible, one additional nurse.

The courtesy of all school officers and teachers, and the assiduous diligence and tact of our assistant have rendered possible the accomplishment of results set forth in the monthly reports sent by me to the Health Department.

Very respectfully,

I. R. PAGE,
School Inspector.

Report of Nurse Mrs. Henrietta E. Knorr.

Assistant to Dr. I. R. Page.

BALTIMORE, June 30, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

In submitting a year's end report of work done in Groups A, B, D, E, G, and parochial schools Saints Leo, Elizabeth, Patrick, Stanislaus, Casimir, Bridget, Michael, and Holy Rosary, I desire to say that the reports which have been published monthly are correct.

More attention has been given pupils of Schools Nos. 93, 43 of Group G, and Nos. 40, 25, 2, 8, 6 and 7, because of their greater need.

Few treatments have been given in school, the diseases having been of too serious a nature, and they have accordingly been taken to dispensaries or referred to physicians.

Pediculosis occurs in appalling numbers of both girls and boys, and in the district to which I have been assigned, few cases receive attention at home. I would, therefore, respectfully request that some means be provided for treating these cases and that children excluded be compelled to remain at home until cured.

It has been the nurse's desire to visit the home of each defective child, but having found 7,716 defectives in 13,160 children, it becomes impossible to visit all, and only the urgent cases were selected, and an effort made to impress upon the parent the necessity of a doctor's attention.

To obtain correct information concerning children whose throat cultures showed the presence of the diphtheria germ, fifty-five visits were paid after June 1, which item I now report.

Many of the medical cards issued are destroyed by the children, and many more receive no attention from the parents, especially among the foreign element. These cases require visiting, and while much has been accomplished, more remains undone.

I desire to report that Schools No. 23 and 25 lack a couch, and children becoming ill in school are put on the floor until sufficiently recovered to be sent home.

Respectfully,

(Mrs.) Henrietta E. Knorr.

Report of Dr. J. Howard Iglehart.

BALTIMORE, August 31, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I respectfully submit my report of medical inspection of schools for the session of 1910-1911, extending over eight months' work.

The same general routine methods have been carried out this year in the work as was done last year, with practically the same percentage of good results accomplished, if not greatly improved upon.

The restriction of the examinations to the children of the first four grades has enabled us to give more attention to the details of the work, and more important than this, has permitted us to do more individual work amongst the defective children, which has resulted in a far greater number of cures than would ordinarily have been the case had we examined all the grades. Our work in the public schools seems to be more appreciated each year, and both parents and teachers, as a rule, unite in helping us to obtain results. In the parochial schools we are given all possible courtesy and assistance, but I must confess I have been very much disappointed in the results of our work in these schools, for aside from having their children vaccinated, the parents pay little or no attention to the cards we send them showing the defective physical condition, which is often of a serious nature. The vast majority of these cases we are unable to follow up, owing to our inadequate working force. This year I was given one group of the colored schools, located in East Baltimore, being the first of these schools that I have examined since being an inspector.

I found very few physically defective children, and then only minor ailments. Only a small percentage of them received treatment. All of the buildings of this group of schools (Group X) are ill adapted for school purposes, being old dirty structures, poorly lighted and ventilated, and in most cases overcrowded. It seems to me that we could accomplish more good by confining our work to the white schools, where we find more defects, and where the returns for our efforts are more encouraging.

In the matter of suggestions, I have little to offer, other than those I have made in my previous reports to you. I would again recommend an increased nursing staff, so that each inspector would have two nurses working with him; thereby increasing the efficiency of our force nearly double that of the present time.

I would suggest the examination of all the children entering the first or kindergarten class, in the beginning of our year's work, the object being to detect under-age, under-size, physically or mentally defective children. Many of these little tots are entered by the parents simply to get rid of them at home, where as a matter of fact they should be, instead of being hustled off to school, where the teacher is made to play the role of nurse. We should have supervision over the entry of these young children, and have the right to reject any of them found under the above named conditions. The necessity for the establishment of sanitary bath arrangements still exists, and by all means should have consideration.

Respectfully submitted,

J. Howard Iglehart, M. D.

Report of Nurse Miss M. A. Gorter.

Assistant to Dr. J. Howard Iglehart.

BALTIMORE, June, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I respectfully submit to you my report as school nurse, from October, 1910, to June, 1911.

My work has been assisting Dr. Iglehart with the inspection and reinspection of twenty-one public and seven parochial schools. Besides, I have inspected at schools, 7,295 children; at home, 237; treated at school, 52 children; at home, 18. Made 1,037 home visits and 65 visits to dispensaries, or social agencies, gave 70 or more short talks on hygiene to entire classes. Arranged lists of names of children needing outings (for the agents of different summer homes for children); and also sent a number of children to Mount Airy for the removal of adenoids.

The work seems to be doing much good educationally. In Groups P, Q and S the results shown were very good. In Group Z (colored schools), and in the parochial schools the reinspection work has been most unsatisfactory, due to the small attendance.

Our schools are so numerous and so far apart that much time and effort is wasted. If we had more nurses, fewer schools closer together, our results would doubtless be much better and our work more thorough.

For the sake of doing some of the work well I have tried to focus my efforts mainly on certain schools in Groups P, Q and S, and the improvement in these schools is marked.

The teachers have evidenced a fine co-operative spirit.

The Charity Organization has been most helpful, especially the middle western branch.

If a few criticisms and suggestions be not amiss along the lines of school sanitation and hygiene, I will add: That although there is an improvement in the cleanliness of school buildings in my groups, still the cleaning is not thoroughly nor hygienically done.

The plumbing arrangements in some of the schools are very faulty; particularly is this the case in Nos. 63 and 78, Group Q. The books used by children who have any contagious disease, before they are excluded from school, should be sterilized or destroyed.

That children should not be allowed to use indiscriminately the same drinking cup.

M. A. Gorter.

Report of Dr. G. A. Thiede.

BALTIMORE, July 30, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I respectfully submit to you my annual report on medical inspection of public schools for session 1910-1911.

Groups examined were as follows: Group I, Schools Nos. 20, 32, 74 and 80; Group J, Schools Nos. 94, 37, 85 and 99; Group K, Schools Nos. 50 Annex, 51 Annex, 53, 54 and Parental; Group Y, Schools Nos. 106, 112 Annex and 118, and seven parochial schools, viz.: Cathedral, St. James, St. Andrews, St. Alphonsus, St. Paul's, St. Catherine's and St. Wenceslaus.

As we only examined to and including the fourth grade, the number was reduced, but value of work increased, as more time could be devoted to each pupil.

About 13,000 children were inspected, including the reinspection. The inspection has been carried on practically as in former years.

The results this year are very gratifying as the reports show as a whole about 45 per centum were included in the cured or under treatment columns. Parents seem to grasp the importance of our recommendations and many have had the defects remedied. The most important of the defects are defective vision, hypertrophied tonsils, adenoids and bad teeth.

Through the persistent efforts of Miss Lorentz, my nurse, we have been able to make very satisfactory reports.

Parents who have heretofore pleaded that they have not the time to take their children to a dispensary or hospital have in a number of cases given written permission to the nurse,

who would bring them and have the necessary medical or surgical services rendered. This has greatly helped our work.

This was the second year for medical inspection in the parochial schools, which received indentically the same inspection as our public schools. I was very much pleased at the very prompt co-operation of the parents and I believe we have these schools today, nearly, if not on a par with the others.

Our greatest set-back in the parochial schools is that the children are not compelled to produce a certificate of vaccination upon entering. Were this rule as fast and tightly bound as in the public schools, much time could be saved, as after inspection of the first grade the little one is sent home with a card notifying its parents of the necessity of having the child vaccinated. The child is then vaccinated and ofttimes remains away from school for thirty days. This procedure is not relished by the sisters or parents.

By your permission I would offer the following suggestions: To take this matter up with Father Nolan, Superintendent of Parochial Schools, and try to have the same rule apply as in the public schools.

With the exception of Public School No. 50 and Annex, No. 51 and Annex (now being replaced by a new building), and 118, the lighting, heating and ventilating are very good.

Public Schools Nos. 50, 50 Annex, 51 Annex, 118 and 116 Annex are not fit buildings to house children for educational purposes. The sanitary condition is bad.

Perfect harmony and co-operation exists between the sisters and teachers and it appears that they are trying to educate the public and parents of the importance of medical inspection of public schools.

Very respectfully,

G. A. Thiede, M. D.

Report of Dr. Richard A. Urquhart.

BALTIMORE, June 5, 1911.

JAMES BOSLEY, M. D.
Commissioner of Health.

DEAR SIR:

I desire herewith to submit my report as medical inspector in the public schools for the past year.

The work has continued along much the same lines as in previous years—daily inspection of the school children with notification by card of those needing medical attention, followed as far as practical by visits from the school nurse.

The results have been about as in previous years. I cannot say they have been better. Familiarity with the notification cards has in many instances, I am afraid, lessened their influence with parents, and unless followed by visits and much persuasion on the part of the nurse, children in most need of treatment do not receive it.

For the furtherance of the work with the present system it becomes absolutely essential that the number of school nurses be increased. Under the supervision of my nurse and myself are some thirty or more schools, with perhaps sixteen thousand children, of whom certainly 30 per cent. are defective. Manifestly it is impossible for one nurse to do the amount of visiting which is really necessary.

In this connection the question of authority vested in a medical school officer is worthy of consideration. How far this can be arranged to extend without infringement on State or municipal law I do not know, but I feel well assured that the extent of our influence would be far greater and the results of our work far more appreciable if we were in position to exclude those children with such remediable physical defects

as materially interfere with their progress. That there are many such children requires no argument.

It seems unnecessary to speak further of the school buildings. The subject has been reviewed from year to year and the Department of Education must be fully aware of the unfitness of many of them, and will, no doubt, remedy them as soon as practical.

I think, however, I can say with fairness that in many schools children in their second year show decided more physical defects than during their first, and that it would seem under a system of compulsory school attendance parents have a right to expect that their children be returned to them at least in no worse physical condition by reason of such attendance.

As it has been done, the work has accomplished and is accomplishing much that is beneficial to the school children, but it does seem that a field as fine of possibilities should have the best cultivation.

Respectfully submitted,

RICHARD A. URQUHART.

Report of Nurse Miss Agnes P. Kloman.

Assistant to Dr. Richard A. Urquhart.

BALTIMORE, June, 1911.

JAMES BOSLEY, M. D.
Commissioner of Health.

DEAR SIR:

In submitting the annual report on school inspection for the past year, I wish to say that I am most deeply impressed as to the amount of good which has been accomplished in the past few years, as well as the opportunities which remain to us.

Our hope seems to lie in awakening the child's interest and pride in trying to keep their little bodies in better condition—in the care and brushing of their teeth, also in keeping the head free from vermin. The latter seems to be one of the most difficult problems, owing to the extreme sensitiveness of the most careless mother. In many instances I find it necessary to assist the mother in the home in treating her child's head.

Our strongest point seems to lie in the personal touch with the child and mother in their homes. It is in this way that difficulties are smoothed over and problems explained. It is at such times that the nurse wishes her field of work not so extensive, that there might be not one but many visits to the same home, till she can assure herself that conditions are improved—that the child has had eyes, ears and throat properly treated and cured. The Federated Charity Organization has done much in making it possible for many children to have the much needed glasses.

The cases of debility and malnutrition after all, seem the most difficult to manage. I find in most cases the children

drink coffee and tea, this being cheaper than milk. As to air, you are told that they are out all day and in some cases the windows are open a "little way" at night.

The co-operation of the teachers is helpful in every way. They seem grateful for the inspection and in many instances requests have come for talks to the higher grades.

In the colored schools, in Group X, which were having the medical inspection for the first time, very good results were obtained.

I would like to say a few words in regard to the dust of the older school buildings especially. If it were possible to oil the floors, as is done in some of the large public buildings, many dangers from dust might be avoided.

Respectfully yours,

AGNES P. KLOMAN.

TABLE NO. 1—*Showing Total Defects of Children in Each School Examined by Dr. H. Warren Buckler and Miss Sally Lucas Jean.*

DEFECTS.	GROUP L.	GROUP C.				GROUP M.					GROUP F.						GROUP U.				
	School 76.	School 28.	School 84.	School 35.	School 33.	School 29.	School 92.	School 4.	School 44.	School 70 & Branch.	School 5.	School 71.	School 26.	School 97.	School 45.	School 16.	School 61.	School 14.	School 21.	School 49.	School 79.
Ear—																					
Deafness	4	1	3	3	1	1	3	2	2	5	1	1	....	....	2	....	2	....	1	....	....
Otitis media	3	2	1	1	2	1	....	....	....	1	2	....	1	....	....	....	....	....	....	....	1
Eye—																					
Blepharitis	1	3	5	4	2	4	1	6	....	1	4	6	4	3	1	1	2	2	3	....	3
Conjunctivitis	1	....	....	....	....	....	1	....	1	....	1	....	....	....	....	1	1	....	1	....	....
Eye strain	51	20	64	21	27	21	20	23	19	14	34	26	24	20	14	17	25	30	22	7	13
Keratitis	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....
Opacity	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Strabismus	5	4	2	7	5	5	4	1	1	1	9	4	3	3	1	3	1	2	....	....	4
Stye	....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ptosis	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....	....	....
Hair and Scalp—																					
Pediculosis	7	1	19	12	6	13	1	33	3	22	19	5	25	9	11	33	....	2	1	2	14
Ringworm	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....
Seborrhœa	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
Mouth—																					
Teeth (imperfect)	81	79	105	60	63	61	121	137	10	117	211	58	137	92	25	143	80	94	81	24	55
Tongue-tie	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	1	....
Nose—																					
Adenoids	64	65	129	66	88	36	44	38	....	60	103	25	50	18	11	77	49	48	35	11	23
Rhinitis	38	16	19	7	11	17	8	36	....	25	46	1	19	17	....	13	....	....	....	....	3

Nervous System—																					
Chorea	7	1	1	1	....	1	....	1	....	....	4	1	....	....	....	2	1	....	2	1	....
Epilepsy	....	....	1	1	....	6	....	....	....	1	3	1	....	....	....	....	....	....	....	....	....
Mental deficiency	15	7	16	11	5	9	....	4	5	3	13	....	7	....	....	9	6	6	7	3	1
Paralysis (infantile)	....	....	....	....	....	....	1	2	2	1	1	....	....	....	....	....	....	....	1	....	....
Skin—																					
Acne	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Eczema	....	....	2	....	1	....	....	1	....	....	....	1	....	1	....	....	....	....	....	....	....
Impetigo	8	2	2	....	4	4	2	3	....	3	10	....	1	....	4	4	....	....	2	....	....
Ringworm	....	....	....	....	2	2	....	....	....	2	3	....	2	....	....	2	2	....	1	....	....
Scabies	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Throat—																					
Tonsils (enlarged)	103	64	109	73	80	49	69	61	13	57	92	30	59	34	18	80	39	38	35	8	27
Diseases Unclassified—																					
Adenitis	8	9	16	7	10	7	7	3	....	10	21	....	8	3	....	6	....	7	2	3	8
Debility	5	9	18	10	11	8	2	6	....	15	10	1	13	5	1	7	5	2	9	1	8
T. B. of spine	....	1	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	1
T. B. of joints	....	2	1	1	....	....	....	....	....	1	1	....	....	....	....	....	1	....	....	....	....
T. B. of glands	2	1	1	....	1	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
T. B. of lungs	1	1	....	....	1	1	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....
Rachitic deformities	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Other deformities	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mumps	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Chickenpox	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
Valvular heart disease	....	....	....	....	....	....	1	....	....	....	....	....	2	....	....	....	1	....	....	....	....
Anæmia	1	....	1	2	3	....	....	....	....	1	2	....	....	2	1	1	4	3	4	1	....
Filth	12	....	13	39	4	9	5	18	....	11	14	2	26	13	1	29	1	....	1	....	3
Lues (congenital)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....
Hydrocephalus	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....
Number of children examined	674	414	692	371	451	300	483	527	115	465	664	205	428	317	137	447	394	368	284	106	223
Number of children sick or disordered	265	196	335	216	209	166	199	249	45	236	383	105	222	150	54	241	169	158	130	44	113
Number of children excluded	7	1	6	4	8	11	2	11	3	11	8	3	12	11	5	15	....	....	2	1	2
Number of children ordered to be vaccinated	21	....	1	....	....	....	....	1	....	2	12	....	3	16	....	5	4	3	3	....	....

MEDICAL EXAMINATION OF PUBLIC SCHOOLS.

TABLE No. 2—*Showing Total Defects of Children in Each School Examined by Dr. I. R. Page and Mrs. H. E. Knorr.*

DEFECTS.	GROUP A.						GROUP B.				GROUP D.					GROUP E.			
	School 3	School 6.	School 23.	School 24.	School 38.	School 47.	School 2.	School 8.	School 25.	School 42.	School 7.	School 40.	School 43.	School 73.	School 93.	School 13.	School 27.	School 77.	School 83.
Ear—																			
Deafness	6	....	5	5	1	3	1	4	3	....	2	2	2	....	10	....	4	2	2
Otorrhœa	2	....	1	....	1	....	....	....	....	....	....	....	....	3	....	....	5	....	....
Eye—																			
Blepharitis	3	1	1	6	....	2	7	10	8	....	4	7	13	5	17	....	3	....	11
Cataract	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Conjunctivitis	....	2	....	1	....	....	4	....	1	1	2	2	8	....	16	1	....	....	2
Coryza	7	....	7	....	....	....	2	2	8	....	7	....	26	....	15	....	....	....	....
Duct stenosis	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....
Diplopia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Eye strain	19	13	18	17	7	19	18	18	28	3	26	31	22	10	73	13	24	9	27
Keratitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....
Opacity	1	....	....	2	....	....	....	....	....	....	....	....	1	....	1	....	....	....	2
Strabismus	....	....	1	1	....	....	4	2	....	....	1	....	2	....	3	1	....	....	4
Stye	....	....	....	....	....	1	1	....	....	....	1	....	....	....	....	....	....	....	3
Granular lids	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....
Hair and Scalp—																			
Alopecia	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....
Pediculosis	57	91	91	65	30	14	235	264	178	13	157	210	227	73	376	35	25	1	22
Ringworm	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Mouth—																			
Teeth (imperfect)	169	44	191	164	55	33	91	112	107	13	62	82	114	18	197	46	59	20	75
Cleft palate	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	1	....	....	....
Nose—																			
Adenoids	10	9	5	7	1	8	19	16	6	2	5	14	11	5	16	5	....	2	5
Rhinitis	1	....	....	2	....	....	....	1	....	....	2	2	4	....	....	....	....	....	....
Deformities	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....

Nervous System—																			
Chorea	2	....	1	....	....	....	....	....	1	....	1	....	....	....	2	....	....	....	1
Mental deficiency	....	....	....	1	....	....	....	....	2	....	1	6	....	....	5	....	....	....	....
Paralysis (infantile)	....	....	....	3	....	....	....	....	....	....	....	2	....	....	....	1	....	....	....
Skin—																			
Acne	....	....	....	....	....	4	....	....	....	....	....	....	....	....	....	....	....	....	....
Echthyma	3	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....
Eczema	4	1	....	5	....	....	1	1	3	....	....	4	....	1	2	....	....	....	1
Furunculosis	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....
Impetigo	2	4	4	4	2	....	....	3	4	....	1	4	....	....	....	....	....	....	....
Prurigo	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....
Ringworm	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....
Scabies	....	....	2	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Herpes	....	....	....	....	....	1	....	....	....	....	....	....	....	....	2	....	1	....	1
Throat—																			
Pharyngitis	2	....	1	....	....	....	....	....	2	....	9	4	6	3	1	5	....	....	7
Tonsils (enlarged)	46	45	57	50	13	14	41	52	38	12	54	39	50	15	103	47	51	27	98
Tonsilitis	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....
Diseases Unclassified—																			
Adenitis	6	5	4	7	1	1	8	2	7	....	6	4	4	9	7	....	12	2	....
Bronchitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....
Debility	3	....	4	....	3	1	3	4	7	....	3	5	5	1	12	....	6	....	3
T. B. suspects	....	....	....	....	....	....	....	....	....	....	2	....	....	....	17	....	....	1	....
T. B. of glands	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Rachitic deformities	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Other deformities	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mumps	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fatty tumor	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Thyroiditis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....
Valvular heart disease	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
Filth	....	....	8	....	1	2	9	4	21	....	15	11	5	4	....	....	....	....	....
Number of children examined	681	363	647	650	144	228	542	632	694	97	475	506	596	227	1090	446	507	174	864
Number of children sick or disordered	342	224	401	346	115	105	444	497	431	44	363	432	530	149	970	157	192	64	276
Number of children excluded	....	9	....	2	....	....	10	26	27	....	22	28	29	....	69	....	4	....	1
Number of children ordered to be vaccinated	1	....	1	....	....	....	4	....	....	....	....	....	....	....	....	....	....	....	....

TABLE No. 3—*Showing Total Defects of Children in Each School Examined by Dr. J. H. Iglehart and Miss M. A. Gorter.*

DEFECTS.	GROUP P.					GROUP Q.					GROUP R.							GROUP Z.					
	School 66.	School 67.	School 68.	School 96.	School 98.	School 11.	School 39.	School 63.	School 65.	School 78.	School 10.	School 15.	School 31.	School 75.	School 82.	School 95.	School 91.	School 101.	School 105.	School 108.	School 111.	School 113.	School 115.
Ear—																							
Deafness	....	....	1	1	4	1	....	1	....	1	1	....	....	....	....	....	1	....	1	....	....	....	....
Otorrhœa	....	....	1	2	1	....	....	....	....	....	1	....	1	....	....	1	1	....	....	....	....	....	....
Eye—																							
Blepharitis	....	4	3	5	2	....	1	1	3	1	4	1	2	3	....	2	2	....	....	....	1	1	....
Conjunctivitis	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Coryza	....	11	15	25	22	17	5	7	15	....	29	15	6	1	....	16	13	....	22	8	17	19	4
Eye strain	....	3	9	....	6	2	....	1	5	1	7	4	4	5	3	1	7	....	7	....	3	1	2
Opacity	....	....	....	....	2	2	....	1	1	....	1	....	....	....	....	....	....	....	2	....	2	1	....
Strabismus	....	3	1	2	6	10	2	4	8	1	4	2	....	....	....	8	1	....	2	....	2	1	1
Stye	....	....	....	1	2	2	....	....	2	....	1	....	1	2	....	....	....	....	....	....	2	....	1
Blindness	....	....	....	....	....	....	1	....	....	1	....	....	....	2	....	....	....	....	1	....	....	1	....
Nystagmus	....	....	....	....	2	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
All others	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hair and Scalp—																							
Alopecia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....
Pediculosis	....	4	8	44	21	16	3	1	1	....	26	3	4	....	....	17	25	....	7	....	3	1	....
Seborrhœa	....	7	12	12	5	46	3	11	6	....	10	5	5	....	....	1	2	....	....	....	....	....	....
Mouth—																							
Teeth (imperfect)	....	11	25	20	79	18	8	13	12	11	63	24	24	27	15	34	34	....	70	24	70	46	25
Tongue-tie	....	2	....	1	1	....	....	1	....	....	....	2	2	....	....	2	....	....	....	....	....	1	....
Cleft palate	....	....	....	....	....	1	1	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....
Nose—																							
Adenoids	....	37	47	66	92	29	14	23	18	6	47	60	54	12	8	48	42	....	49	10	36	37	6
Rhinitis	....	28	36	45	36	29	15	26	32	2	40	29	19	3	2	37	26	....	19	9	20	31	5
Deformities	....	....	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Nervous System—																							
Chorea		3	1	1				3	1			1				1							
Epilepsy															6								
Mental deficiency		1		1		1			1		1	1	4	1	8	3			5		1		
Paralysis (infantile)					1								1						1				
Stuttering				1	1						2		1				1				1		
Skin—																							
Acne			1		1	1	1					1					1				1		1
Eczema				1		1			1		2		2				1						
Furunculosis				1																			
Impetigo			3	2		2		1	2			1	1				1						
Ringworm			1																				
Scabies		3		2								2					1				1		
Throat—																							
Tonsils (enlarged)		26	50	73	91	38	11	30	16	12	41	59	61	12	4	36	35		62	20	44	44	12
Tonsilitis			1			1															1		
Diseases Unclassified—																							
Adenitis		8	5	18	16	13	2	6	9	2	9	12	7	1	1	3	3		8	1	6	4	3
Debility		8	12	3	18	11	2	2	6	1	4	9	9	2		11	4		2		1	2	1
Enuresis											2	1	1			1	1				1		1
T. B. of joints																			1				
Rachitic deformities																						4	
Mumps																			1				
Measles				1																			
Scoliosis						1																	
Filth		1		2	2						2												
Torticolis				1																			
Talipes valgum		1																					
Number of children examined	316	355	580	610	784	166	424	277	132	427	490	304	136	41	373	271		415	152	445	338	160	
Number of children sick or disordered	167	234	337	411	246	69	135	132	39	209	232	209	71	48	223	202		261	72	213	194	63	
Number of children excluded	3	2	21		1						2				1	6		1		2			
Number of children ordered to be vaccinated	7	16	24	1	18	2	11	5		10	11	6			6	12		9	42	10	5	4	

TABLE No. 4—*Showing Total Defects of Children in Each School Examined by Dr. G. A. Thiede and Miss Virginia B. Lorentz.*

DEFECTS.	GROUP I.				GROUP J.				GROUP K.					GROUP Y.			
	School 20.	School 32.	School 74.	School 80.	School 37.	School 85.	School 94.	School 99.	School 50. & Annex.	School 51 & Annex.	School 52.	School 53.	School 54.	School 106.	School 112.	School 118 & Annex.	Parental.
Ear—																	
Deafness	1					3							2				
Otorrhœa	3	1	1			1		3		2		1		2	2	1	
Cerumen							1							1			
Eye—																	
Blepharitis	22	12	10	7	19	14	21	21	2	13		12	7	8	12	3	1
Cataract				1													
Conjunctivitis			1											1	1		
Coryza					1		1										
Eye strain	21	10	5	2	1	12	9	15		4		9	2	20	40	26	3
Strabismus	7	2	4		6	5	5	6	2	3		3	3	4	6	1	
Stye	1						1	2							1		
Tarsal tumor														1	1		
Blindness	1																
All others								1									
Hair and Scalp—																	
Alopecia	1		1	1											1		
Pediculosis	82	13	19	8	59	46	65	70	12	34		30	10	16	18	3	
Ringworm														7	16	8	
Seborrhœa		3	1	5	5	8	4	11						2	13		

Mouth—																	
Teeth (imperfect)	62	10	8	11	19	15	30	38	7	33	.....	14	11	28	51	25	4
Tongue-tie	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Cleft palate	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nose—																	
Adenoids	83	10	26	.....	19	25	23	62	14	14	.....	47	23	16	34	2	6
Rhinitis	23	10	8	4	9	5	7	5	2	2	.....	3	.....	23	15	6	.....
Deformities	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nervous System—																	
Hystero epilepsy	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Epilepsy	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Mental deficiency	2	1	.....	.....	3	2	2	1	.....	10	.....	.....	.....	8	2	1	.....
Paralysis (infantile)	.....	.....	.....	.....	.....	2	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....
Stuttering	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Skin—																	
Acne	.....	3	1	2	.....	2	1	3	.....	.....	.....	.....	.....	4	11	.....	.....
Eczema	6	1	4	4	3	1	5	6	.....	3	.....	3	2	3	4	.....	.....
Ichthyosis	3	1	4	1	1	1	3	.....	.....	.....	.....	.....	.....	1	6	4	.....
Impetigo	.....	.....	.....	.....	1	2	1	4	.....	4	.....	.....	.....	.....	.....	.....	.....
Psoriasis	.....	.....	.....	.....	1	.....	.....	2	.....	.....	.....	.....	1	1	.....	.....	.....
Ringworm	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	3	2	1	.....
Scabies	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	4	1	.....	.....
Throat—																	
Pharyngitis	2	.....	1	.....	2	6	.....	1	.....	1	.....	1	.....	1	.....	.....	.....
Tonsils (enlarged)	142	39	57	12	46	55	67	108	27	62	.....	66	48	71	153	21	7
Tonsilitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Tonsil cyst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Laryngitis	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases Unclassified—																	
Adenitis	60	14	10	1	11	21	14	60	5	25	.....	9	21	21	45	11	.....
Debiltiy	4	1	.....	.....	2	1	2	2	.....	.....	.....	.....	1	.....	.....	.....	.....
Enuresis	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
T. B. of lungs	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Rachitic deformities	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5	.....	.....

TABLE No. 4 (Continued)—*Showing Total Defects of Children in Each School Examined by Dr. G. A. Thiede and Miss Virginia B. Lorentz.*

DEFECTS.	GROUP I.				GROUP J.				GROUP K.					GROUP Y.			PARENTAL.
	School 20.	School 32.	School 74.	School 80.	School 37.	School 85.	School 94.	School 99.	School 50. & Annex.	School 51 & Annex.	School 52.	School 53.	School 54.	School 106.	School 112.	School 118 & Annex.	
Diseases Unclassified—Cont'd—																	
Spine curvature	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Limp	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Other deformities	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Mumps	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Papilloma of uvula	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Papilloma of lip	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Filth	1	.....	.....	.....	.....	.....	.....	7	2	.....	.....	.....	8	.....	.....	.....	.....
Rhus tox	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....
Diphtheria	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Number of children examined	883	358	441	254	490	589	565	868	178	581	.....	430	403	491	982	239	33
Number of children sick or disordered	379	126	148	71	177	197	235	343	53	206	.....	167	118	204	343	86	18
Number of children excluded	8	.....	.....	.....	5	4	11	6	1	6	.....	5	.....	14	20	10	.....
Number of children ordered to be vaccinated	26	19	28	2	15	5	5	7	5	42	.....	17	13	16	14	1	.....

TABLE No. 5—*Showing Total Defects of Children in Each School Examined by Dr. Richard A. Urquhart and Miss Agnes P. Kloman.*

DEFECTS.	GROUP N.						GROUP O.				GROUP V.				GROUP W.					GROUP X.				
	School 1.	School 9.	School 12.	School 22.	School 34.	School 72.	School 19.	School 30.	School 48.	School 86.	School 60.	School 62.	School 64.	School 81.	School 55.	School 56.	School 57.	School 58.	School 59.	School 100.	School 107 & Branch.	School 109 & Branch.	School 110.	School 116.
Ear—																								
Deafness	1	1	2	2	4	....	1	4	....	3	2	2	4	1	2	2	....	....	....	3	1	3	1	....
Otitis media	....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....
Otorrhœa	1	....	....	....	....	....	....	1	....	....	1	....	1	....	1	....	....	....	....	....	3	1	2	....
Eye—																								
Catract	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
Conjunctivitis	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	....	....
Coryza	2	....	....	....	3	....	4	....	....	....	....	....	....	2	6	....	....	....	....	....	....	....	....	....
Eye strain	18	17	18	18	35	22	9	8	4	21	23	23	9	7	16	2	1	4	2	15	41	27	16	12
Growth in lid	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Opacity	....	....	....	....	2	....	....	....	1	....	....	....	....	1	....	....	....	....	....	1	3	1	....	....
Strabismus	....	....	1	4	3	....	1	....	....	....	1	1	....	2	3	1	....	1	1	1	1	....	....	....
Stye	....	....	....	....	....	....	....	....	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....
Blindness	....	....	....	....	....	2	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....
Hair and Scalp—																								
Pediculosis	17	95	57	26	57	28	....	43	7	14	19	19	1	....	42	16	12	8	4	21	16	8	10	....
Ringworm	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	16	4	4	....
Seborrhœa	1	....	2	1	3	....	....	....	....	....	1	....	....	....	....	....	1	1	....	....	2	....	....	....

TABLE No. 5 (Continued)—*Showing Total Defects of Children in Each School Examined by Dr. Richard A. Urquhart and Miss Agnes P. Kloman.*

DEFECTS.	GROUP N.						GROUP O.				GROUP V.				GROUP W.					GROUP X.				
	School 1.	School 9.	School 12.	School 22.	School 34.	School 72.	School 19.	School 30.	School 48.	School 86.	School 60.	School 62.	School 64.	School 81.	School 55.	School 56.	School 57.	School 58.	School 59.	School 100.	School 107 & Branch.	School 109 & Branch.	School 110.	School 116.
Mouth—																								
Teeth (imp'f'ct)	78	114	168	180	136	91	80	113	34	105	132	132	29	92	169	47	41	46	27	88	173	81	94	19
Tongue-tie	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Nose—																								
Adenoids	25	40	57	40	53	12	23	26	1	34	36	41	10	30	38	14	16	6	4	38	42	29	17	3
Nervous System—																								
Chorea	....	....	....	1	....	1	....	....	....	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....
Epilepsy	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
Mental deficiency	2	....	6	....	2	....	....	2	....	....	1	4	....	....	6	....	3	....	....	....	3	1	....	....
Paralysis (infantile)	1	....	1	....	2	....	1	1	1	....	....	1	....	....	....	....	....	....	....	....	1	....	1	....
Stuttering	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Skin—																								
Eczema	....	....	1	4	2	1	....	....	....	....	2	....	....	....	1	....	....	1	....	....	2	....	....	....
Ichthyosis	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Impetigo	....	1	2	4	4	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....
Scabies	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....

Throat—																								
Pharyngitis												2												
Tonsils (enl'g'd)	9	21	32	18	36	12	18	20	3	24	23	30	9	15	49	13	15	6	6	26	29	24	15	1
Tonsilitis							2								2						1			
Diseases Unclassified—																								
Adenitis						3	15	4		3					4	2		2	1	4				
Debility	9	4	6	9	14	9	11	10		10	10	12		8	20	2	1	5	1	9	24	10		
Enuresis				1	1																			
T. B. of spine			1		1	1		1							1								1	
T. B. of joints			1		1			1	1										1		1			1
T. B. of glands						2	1	2			3			2	1					5		5	4	1
Rachitic deformities																				8	2	6	7	
Mumps												1								1				
Valvular heart disease						1				1														
Filth	6		1								1													
Keloid																				2				
Number of children examined	243	397	563	515	580	237	317	425	90	426	466	550	197	289	675	181	168	166	148	384	731	352	563	66
Number of children sick or disordered	142	222	237	272	292	136	143	184	26	199	220	265	70	161	299	87	77	78	53	205	328	176	196	37
Number of children excluded	10	24	12	9	17	3	1	10	2	5	7	9		7	7	5	2	3	2	6	7	4	3	
Number of children ordered to be vaccinated	10	11	17	18	34		15	1	1	25	34	41	11	11	19	5	5	4	12	10	32	16	46	5

TABLE No. 6—*Showing Total Defects of Colored Children in Each School.*

DEFECTS..	Colored School No. 106.	Colored School No. 112.	Colored School No. 118 and Annex.	Colored School No. 101.	Colored School No. 105.	Colored School No. 108.	Colored School No. 111.	Colored School No. 113.	Colored School No. 115.	Colored School No. 100.	Colored School No. 107 and Branch.	Colored School No. 109 and Branch.	Colored School No. 110.	Colored School No. 116.	Total.
Ear—															
Deafness									1					8	9
Otitis media														1	1
Otorrhœa			5											6	11
Cerumen			1												1
Eye—															
Blepharitis			23						2						25
Conjunctivitis			2											1	3
Coryza									70						70
Eye strain			86						13					111	210
Opacity									5					5	10
Strabismus			11						6					2	19
Stye			1						3						4
Tarsal tumor			2												2
Blindness									2					1	3
All others									1						1
Hair and Scalp—															
Alopecia			1						1						2
Pediculosis			37						11					55	103
Ringworm			31											28	59
Seborrhœa			15											2	17
Mouth—															
Teeth (imperfect)			104						235					455	794
Tongue-tie			1						1						2

Nose—																
Adenoids			52						138					129	319
Rhinitis			44						84						128
Nervous System—																
Hystero epilepsy			1												1
Epilepsy			1											1	2
Mental deficiency			11						6					4	21
Paralysis (infantile)									1					2	3
Stuttering									1						1
Skin—																
Acne			15						2						17
Eczema			7											2	9
Ichthyosis			11												11
Psoriasis			1												1
Ringworm			6												6
Scabies			5						1					1	7
Throat—																
Pharyngitis			1												1
Tonsils (enlarged)			245						182					95	522
Tonsilitis			1						1					1	3
Diseases Unclassified—																
Adenitis			77						22					4	103
Debility									6					43	49
Enuresis									2						2
T. B. of spine														1	1
T. B. of joints									1					2	3
T. B. of glands														15	15
T. B. of lungs			1												1
Rachitic deformities			6					4						23	33
Spinal curvature			1												1
Other deformities			1												1
Mumps									1					1	2
Keloid														2	2
Rhus tox			1												1
Number of children examined			1712						1510					2096	5318
Number of children sick or disordered			633						803					942	2378
Number of children excluded			44						3					20	77
Number of children ordered to be vaccinated			31						70					109	210

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE No. 7—*Showing Total Defects of Children in Each School Examined by Dr. H. Warren Buckler and Miss S. L. Jean.*

DEFECTS.	Holy Cross.	Fourteen Holy Martyrs.	St. Jerome's.	St. Joseph's.	Lady of Good Counsel.	St. Mary Star of the Sea.	St. Monica's.	St. Peter's.
Ear—								
Deafness	2	4	1	.....	1	.....	.....	3
Otitis media	2	.....	.....	1	.....	1	.....	.....
Eye—								
Blepharitis	1	1	3	.....	.....	4	.....	6
Conjunctivitis	.....	.....	1	.....	.....	1	.....	.....
Eye strain	6	14	17	4	15	26	1	29
Keratitis	1	.....	.....	.....	.....	1	.....	1
Opacity	2	.....	2	1	1	.....	1	2
Strabismus	1	.....	3	2	5	5	.....	8
Ptosis	.....	.....	.....	.....	.....	1	.....	1
Hair and Scalp—								
Pediculosis	7	6	12	9	.....	15	.....	13
Mouth—								
Teeth (imperfect)	52	45	38	4	21	98	5	62
Tongue-tie	.....	1	.....	.....	1	.....	.....	.....
Nose—								
Adenoids	70	30	54	32	24	76	.....	75
Rhinitis	.....	4	.....	8	18	14	.....	.....
Nervous System—								
Chorea	.....	.....	.....	.....	.....	.....	.....	1
Epilepsy	.....	.....	.....	.....	1	.....	.....	1
Mental deficiency	2	1	2	6	.....	6	.....	18
Skin—								
Eczema	.....	.....	.....	.....	.....	.....	.....	1
Impetigo	2	.....	1	1	2	.....	.....	2
Ringworm	.....	.....	.....	2	.....	.....	.....	.....
Scabies	.....	.....	1	.....	.....	1	.....	1

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE No. 7 (Continued)—*Showing Total Defects of Children in Each School Examined by Dr. H. Warren Buckler and Miss S. L. Jean.*

DEFECTS.	Holy Cross.	Fourteen Holy Martyrs.	St. Jerome's.	St. Joseph's.	Lady of Good Counsel.	St. Mary Star of the Sea.	St. Monica's.	St. Peter's.
Throat—								
Tonsils (enlarged)	54	19	42	24	34	57	4	71
Diseases Unclassified—								
Adenitis	10	3	4	1	5	6	3	12
Debility	13	7	12	5	3	13	.....	24
T. B. of spine	.....	.....	.....	.....	1	2	.....	1
T. B. of joints	.....	1	.....	.....	.....	.....	.....	.....
T. B. of glands	.....	.....	.....	.....	.....	1	.....	.....
T. B. of lungs	.....	.....	.....	.....	.....	.....	.....	1
Mumps	.....	.....	.....	.....	.....	1	.....	.....
Valvular heart disease	.....	.....	1	.....	.....	.....	.....	1
Filth	.....	7	17	10	1	3	3	.....
Aneurism	.....	.....	1	.....	.....	.....	.....	.....
Number of children examined	354	196	353	140	302	611	15	447
Number of children sick or disordered	138	84	134	61	92	213	9	202
Number of children excluded	1	.....	1	1	.....	8	.....	4
Number of children order to be vaccinated.	47	29	48	10	33	40	.....	51

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE No. 8—*Showing Total Defects of Children in Each School Examined by Dr. G. A. Thiede and Miss Virginia B. Lorentz.*

DEFECTS.	Cathedral.	St. Alphonsus'.	St. Andrew's.	St. Catherine's.	St. James'.	St. Paul's.	St. Wenceslaus'.
Ear—							
Deafness	2	.....	.....	.....	.....	1	.....
Otorrhœa	1	1	.....	.....	1	.....	.....
Eye—							
Blepharitis	6	1	11	5	14	17	16
Cataract	.....	1	.....	.....	.....	.....	.....
Conjunctivitis	.....	.....	1	.....	1	.....	.....
Eye strain	5	1	17	2	9	2	6
Strabismus	.....	.....	3	.....	3	2	4
Stye	.....	.....	1	1	1	1	.....
Hair and Scalp—							
Pediculosis	4	11	22	9	51	48	53
Seborrhœa	4	.....	2	1	3	3	3
Mouth—							
Teeth (imperfect)	9	6	20	5	27	20	35
Cleft palate	.....	.....	.....	.....	.....	.....	1
Nose—							
Adenoids	3	9	16	3	26	23	25
Rhinitis	.....	1	5	3	5	12	9
Fissures	.....	.....	.....	.....	.....	.....	1
Nervous System—							
Mental deficiency	.....	.....	1	.....	.....	1	.....
Skin—							
Acne	1	1	.....	.....	.....	.....	1
Eczema	1	.....	2	.....	5	4	2
Ichthyosis	.....	.....	.....	.....	1	.....	.....
Impetigo	.....	.....	1	.....	1	.....	.....
Psoriasis	.....	.....	.....	.....	.....	.....	1
Scabies	.....	.....	.....	.....	1	2	.....

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE No. 8 (Continued)—*Showing Total Defects of Children in Each School Examined by Dr. G. A. Thiede and Miss Virginia B. Lorentz.*

DEFECTS.	Cathedral.	St. Alphonsus'.	St. Andrew's.	St. Catherine's.	St. James'.	St. Paul's.	St. Wenceslaus'.
Throat—							
Pharyngitis	1	.....	1	.....	1	.....	1
Tonsils (enlarged)	16	17	35	17	49	37	50
Diseases Unclassified—							
Adenitis	4	10	8	1	24	18	11
Debility	.....	.....	.....	.....	.....	.....	1
Spinal curvature	.....	.....	.....	.....	.....	.....	1
Other deformities	.....	.....	.....	.....	1	.....	.....
Mumps	.....	.....	.....	.....	.....	1	.....
Number of children examined.	123	107	237	121	431	322	367
Number of children sick or disordered	59	57	115	47	179	150	172
Number of children excluded.	.....	.....	1	.....	7	5	1
Number of children ordered to be vaccinated	17	17	42	10	90	62	59

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE No. 9—*Showing Total Defects of Children in Each School Examined by Dr. J. H. Iglehart and Miss M. A. Gorter.*

DEFECTS.	St. Benedict's.	St. Gregory's.	St. Joseph's.	St. Martin's.		St. Peter Claver's.	St. Pius'.
				Boys.	Girls.		
Eye—							
Blepharitis	.....	4	1	.....	1	.....	.....
Coryza	1	15	9	10	1	8	2
Eye strain	.....	.....	2	1	1	.....	.....
Strabismus	1	3	2	.....	1	1	.....
Stye	.....	.....	.....	1	.....	.....	.....
Tarsal cyst	.....	.....	1	.....	.....	.....	.....
Hair and Scalp—							
Pediculosis	.....	8	6	.....	36	.....	6
Seborrhœa	2	1	6	2	1	.....	2
Mouth—							
Teeth (imperfect)	14	35	25	33	30	30	24
Tongue-tie	.....	1	.....	1	.....	1	1
Cleft palate	.....	.....	.....	.....	1	.....	.....
Nose—							
Adenoids	18	32	14	21	29	13	21
Rhinitis	7	23	6	18	14	10	9
Deformities	.....	1	1	.....	.....	.....	2
Nervous System—							
Mental deficiency	.....	2	1	.....	.....	.....	.....
Stuttering	1	.....	.....	.....	.....	.....	.....
Skin—							
Acne	.....	.....	1	2	2	.....	.....
Eczema	.....	.....	.....	.....	2	.....	2
Impetigo	.....	.....	.....	1	1	.....	1
Scabies	.....	.....	.....	.....	.....	1	.....
Throat—							
Tonsils (enlarged)	8	26	22	16	27	18	19

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE No. 9 (Continued)—*Showing Total Defects of Children in Each School Examined by Dr. J. H. Iglehart and Miss M. A. Gorter.*

DEFECTS.	St. Benedict's.	St. Gregory's.	St. Joseph's.	St. Martin's.		St. Peter Claver's.	St. Pius'.
				Boys.	Girls.		
Diseases Unclassified—							
Adenitis	3	2	1	1	.....	2	1
Debility	.....	10	.....	2	.....	.....	.....
Enuresis	.....	1	1	1	.....	.....	.....
T. B. of lungs	.....	1	.....	.....	.....	.....	.....
Other deformities	.....	.....	.....	1	.....	.....	.....
Filth	.....	.....	.....	.....	1	.....	.....
Myoma of chest	.....	.....	.....	.....	.....	.....	1
Torticollis	.....	.....	.....	1	.....	.....	.....
Number of children examined	90	346	191	322	298	223	171
Number of children sick or disordered	55	165	99	112	156	84	91
Number of children excluded	.....	1	.....	.....	2	2	.....
Number of children ordered to be vaccinated	19	37	22	59	72	43	27

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE NO. 10—*Showing Total Defects of Children in Each School Examined by Dr. R. A. Urquhart and Miss Agnes P. Kloman.*

DEFECTS.	St. Ann's.	Corpus Christi.	Immaculate Conception.	St. John's.		Sts. Philip and James.	St. Thomas'.	St. Barnabas'.
				Boys.	Girls.			
Ear—								
Deafness	1	.....	2	3	.....	.....	.....	.....
Otitis media	2	1	2	.....	.....	.....	.....	.....
Otorrhœa	.....	.....	.....	1	.....	.....	.....	.....
Eye—								
Blepharitis	.....	.....	.....	.....	.....	.....	2	.....
Coryza	2	.....	.....	.....	3	.....	1	.....
Eye strain	26	5	11	13	17	6	8	7
Strabismus	1	3	4	3	.....	.....	3	.....
Blindness	2	.....	.....	.....	.....	.....	.....	.....
Hair and Scalp—								
Alopecia	.....	.....	.....	1	.....	.....	.....	.....
Pediculosis	21	13	22	23	105	5	6	1
Ringworm	.....	.....	.....	.....	.....	.....	.....	2
Mouth—								
Teeth (imperfect)	110	27	41	79	107	29	41	31
Cleft palate	1	.....	.....	.....	.....	.....	.....	.....
Nose—								
Adenoids	28	7	10	40	20	5	5	11
Nervous System—								
Chorea	.....	.....	.....	1	.....	.....	.....	.....
Mental deficiency	.....	.....	.....	.....	.....	.....	.....	2
Paralysis (infantile)	.....	.....	.....	2	.....	.....	1	.....
Skin—								
Acne	1	.....	.....	.....	1	.....	.....	.....
Eczema	.....	.....	.....	1	.....	1	.....	.....
Impetigo	.....	.....	.....	1	1	.....	.....	.....
Throat—								
Tonsils (enlarged)	20	3	10	10	22	4	3	14
Tonsilitis	.....	.....	2	.....	.....	.....	.....	.....

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE No. 10 (Continued)—*Showing Total Defects of Children in Each School Examined by Dr. R. A. Urquhart and Miss Agnes Kloman.*

DEFECTS.	St. Ann's.	Corpus Christi.	Immaculate Conception.	St. John's.		Sts. Philip and James.	St. Thomas'.	St. Barnabas'.
				Boys.	Girls.			
Diseases Unclassified—								
Adenitis	4	4	.....	.....	.....	.....	.....	3
Debility	10	.....	5	8	.....	.....	2	.....
Enuresis	.....	.....	.....	7	.....	.....	.....	.....
T. B. of spine	.....	.....	.....	.....	.....	.....	.....	1
T. B. of joints	.....	.....	.....	2	.....	.....	.....	.....
T. B. of glands	1	1	.....	.....	.....	.....	.....	5
Rachitic deformities	.....	.....	.....	.....	.....	.....	.....	1
Other deformities	.....	.....	.....	.....	.....	.....	1	.....
Number of children examined	443	112	217	375	430	138	145	132
Number of children sick or disordered	221	53	110	186	218	64	65	76
Number of children excluded	2	.....	4	3	28	.....	2	1
Number of children ordered to be vaccinated	63	10	29	74	72	25	6	22

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE NO. 11—*Showing Total Defects of Children in Each School Examined by Dr. I. R. Page and Mrs. Henrietta E. Knorr.*

DEFECTS.	St. Bridget's.	St. Cassimir's.	St. Elizabeth's.	Holy Rosary.	St. Leo's.	St. Michael's.	St. Patrick's.	St. Stanislaus'.
Ear—								
Deafness	6	6	2	4	.....	13	1	3
Otorrhœa	.....	.....	.....	.....	.....	10	.....	.....
Eye—								
Blepharitis	6	.....	4	1	.....	8	6	3
Cataract	.....	.....	.....	2	.....	.....	.....	2
Conjunctivitis	1	.....	1	2	.....	.....	.....	2
Coryza	.....	6	6	.....	8	25	.....	.....
Eye strain	21	21	20	32	7	39	13	40
Opacity	.....	.....	.....	1	.....	.....	.....	.....
Strabismus	.....	1	1	3	.....	4	.....	.....
Stye	1	.....	.....	3	.....	.....	.....	.....
Granular lids	1	.....	.....	.....	.....	.....	.....	.....
Hair and Scalp—								
Pediculosis	7	.....	14	20	40	70	23	61
Ringworm	1	1	.....	3	.....	.....	.....	.....
Mouth—								
Teeth (imperfect)	12	10	14	39	5	137	17	43
Cleft palate	.....	1	.....	.....	.....	.....	.....	.....
Nose—								
Adenoids	3	5	7	7	.....	23	1	8
Nervous System—								
Chorea	.....	.....	.....	.....	1	.....	.....	.....
Mental deficiency	.....	.....	.....	1	.....	.....	.....	.....
Paralysis (infantile)	1	.....	.....	.....	.....	.....	.....	.....
Defective speech	1	.....	1	.....	.....	.....	.....	.....
Skin—								
Acne	1	.....	2	.....	.....	.....	.....	.....
Echthyma	.....	1	.....	3	.....	.....	.....	4
Eczema	1	.....	.....	1	.....	2	.....	1
Herpes	.....	.....	.....	.....	.....	1	.....	.....
Purigo	.....	.....	.....	.....	1	.....	.....	.....
Ringworm	.....	.....	.....	3	.....	.....	.....	4

MEDICAL EXAMINATION OF PAROCHIAL SCHOOLS.

TABLE NO. 11 (Continued)—*Showing Total Defects of Children in Each School Examined by Dr. I. R. Page and Mrs. Henrietta E. Knorr.*

DEFECTS.	St. Bridget's.	St. Cassimir's.	St. Elizabeth's.	Holy Rosary.	St. Leo's.	St. Michael's.	St. Patrick's.	St. Stanislaus'.
Throat—								
Pharyngitis	1	4	7	27	6	11	6	20
Tonsils (enlarged)	28	47	40	61	19	95	21	56
Diseases Unclassified—								
Adenitis	2	8	3	3	2	15	1	6
Debility	1	6	1	8	3	16	1	4
T. B. suspects	.....	.....	.....	5	.....	.....	.....	5
Valvular heart disease.	.....	1	.....	.....	.....	.....	.....	.....
Filth	.....	.....	.....	.....	.....	4	.....	.....
Number of children examined	288	337	342	700	198	765	254	770
Number of children sick or disordered	99	118	123	232	92	476	87	261
Number of children excluded	.....	.....	.....	.....	1	.....	1	.....
Number of children ordered to be vaccinated	47	78	.....	182	21	110	.....	175

MEDICAL EXAMINATIONS OF PUBLIC AND PAROCHIAL SCHOOLS.

TABLE NO. 12—*Showing the Total Defects in All the Schools and in the Parochial and Public (White and Colored) Schools Separately.*

DEFECTS.	Public Schools (White).	Parochial Schools.	Public Schools (Colored).	Grand Total.
Ear—				
Deafness	132	55	9	196
Otitis media	.....	9	1	10
Otorrhœa	52	14	11	77
Cerumen	1	.....	.....	1
Eye—				
Blepharitis	348	121	25	494
Cataract	2	5	.....	7
Conjunctivitis	50	10	3	63
Coryza	290	97	70	457
Eye strain	1,308	444	210	1,962
Keratitis	4	3	.....	7
Opacity	20	10	10	40
Strabismus	201	65	19	285
Stye	27	9	4	40
Tarsal tumor	.....	.....	2	2
Tarsal cyst	.....	1	.....	1
Granular lids	2	1	.....	3
Blindness	9	2	3	14
Ptosis	4	2	.....	6
Duct stenosis	2	.....	.....	2
Mystagmus	4	.....	.....	4
All others	4	.....	1	5
Hair and Scalp—				
Alopecia	5	1	2	8
Pediculosis	3,630	747	103	4,480
Ringworm	3	7	59	69
Seborrhœa	173	30	17	220
Mouth—				
Teeth (imperfect)	5,776	1,280	794	7,850
Tongue-tie	13	6	2	21
Cleft palate	7	4	.....	11

MEDICAL EXAMINATIONS OF PUBLIC AND PAROCHIAL SCHOOLS.

TABLE No. 12 (Continued)—*Showing the Total Defects in All the Schools and in the Parochial and Public (White and Colored) Schools Separately.*

DEFECTS.	Public Schools (White).	Parochial Schools.	Public Schools (Colored).	Grand Total.
Nose—				
Adenoids	2,641	794	319	3,754
Rhinitis	814	166	128	1,108
Deformities	5	4	.....	9
Fissures	.....	1	.....	1
Nervous System—				
Chorea	48	3	.....	51
Epilepsy	20	2	2	24
Mental deficiency	211	43	21	275
Paralysis (infantile)	29	4	3	36
Stuttering	8	1	1	10
Defective speech	.....	2	.....	2
Hystero epilepsy	.....	.....	1	1
Skin—				
Acne	23	13	17	53
Echthyma	5	8	.....	13
Eczema	87	26	9	122
Furunculosis	2	.....	.....	2
Ichthyosis	16	1	11	33
Impetigo	115	15	.....	130
Psoriasis	4	1	1	6
Ringworm	20	9	6	35
Scabies	16	7	7	30
Herpes	5	1	.....	6
Purigo	2	1	.....	3
Throat—				
Pharyngitis	56	86	1	143
Tonsils (enlarged)	3,646	1,115	522	5,283
Tonsilitis	8	2	3	13
Tonsil cyst	1	.....	.....	1
Laryngitis	2	.....	.....	2

(*Continued on Page 76.*)

MEDICAL EXAMINATIONS OF PUBLIC AND PAROCHIAL SCHOOLS.

TABLE No. 12 (Continued)—*Showing the Total Defects in All the Schools and in the Parochial and Public (White and Colored) Schools Separately.*

DEFECTS.	Public Schools (White).	Parochial Schools.	Public Schools (Colored).	Grand Total.
Diseases Unclassified—				
Adenitis	616	181	103	900
Bronchitis	1	.....	.....	1
Debility	463	154	49	666
Enuresis	10	10	2	22
T. B. suspects	20	10	.....	30
T. B. of spine	9	5	1	15
T. B. of joints	12	3	3	18
T. B. of glands	20	8	15	43
T. B. of lungs	7	2	1	10
Rachitic deformities	2	1	33	36
Limp	1	.....	.....	1
Spinal curvature	.....	1	1	2
Other deformities	5	3	1	9
Mumps	4	2	2	8
Measles	1	.....	.....	1
Sciolosis	1	.....	.....	1
Chickenpox	2	.....	.....	2
Thyroiditis	1	.....	.....	1
Fatty tumor	1	.....	.....	1
Papilloma of uvula	1	.....	.....	1
Papilloma of lip	2	.....	.....	2
Talipes valgum	1	.....	.....	1
Valvular heart disease	7	3	.....	10
Anæmia	26	.....	.....	26
Filth	314	46	.....	360
Toticollis	1	.....	.....	1
Rhus tox	1	.....	1	2
Myoma of cheek	.....	1	.....	1
Hydrocephalus	1	.....	.....	1
Diphtheria	1	.....	.....	1
Torticollis	.....	1	.....	1
Aneurism	.....	1	.....	1
Keloid	.....	.....	2	2

MEDICAL EXAMINATIONS OF PUBLIC AND PAROCHIAL SCHOOLS.

TABLE No. 12 (Continued)—*Showing the Total Defects in All the Schools and in the Parochial and Public (White and Colored) Schools Separately.*

DEFECTS.	Public Schools (White).	Parochial Schools.	Public Schools (Colored).	Grand Total.
Number of children examined...	35,988	11,413	5,318	52,719
Number of children sick or disordered	19,554	4,955	2,378	26,887
Number of children excluded....	557	76	77	710
Number of children ordered to be vaccinated	664	1,728	210	2,602

SPECIAL TABLES

Tuberculosis

Pneumonia

Broncho-Pneumonia

Bronchitis

Alimentary Canal

Inanition

Marasmus

Cancer

Heart Diseases

Bright's Disease

Typhoid Fever

Scarlet Fever

Diphtheria

Whooping Cough

Measles

GENERAL TABLE No. 1—PART I—*Deaths from All Causes, by Wards, Age, Sex, and Color, Including Bay View Asylum, But Not Including Non-Residents, 1911.*

WARDS.	NON-RESIDENTS.	Under 1 Month.				Between 1 and 3 Months.				Three Months to 12 Months.				Between 1 and 2 Years.				Between 2 and 3 Years.				Between 3 and 4 Years.				Between 4 and 5 Years.				Between 5 and 9 Years.				Between 10 and 14 Years.			
		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	3	11	14	1	1	8	9	....	....	26	27	1	....	12	9	1	....	9	....	....	....	1	1	....	....	2	....	....	....	5	3	....	....	3	1	....	....
Second	2	17	8	....	1	10	5	1	....	31	29	1	....	18	12	1	1	3	4	....	....	1	....	....	....	....	2	....	....	3	3	....	....	4	1	1	....
Third	4	15	5	2	2	7	8	1	....	22	24	3	1	11	10	1	....	3	1	1	....	1	2	....	1	....	1	....	1	2	1	....	....	2	3	....	....
Fourth	156	6	7	7	10	7	2	10	13	5	7	14	20	2	2	4	2	3	....	....	3	3	2	....	2	2	1	....	....	1	2	....	2	3	....	1	1
Fifth	....	7	8	6	6	2	2	4	1	13	5	5	5	8	4	4	3	2	1	....	1	1	1	1	1	....	2	....	1	2	1	2	1	6	3	1	2
Sixth	8	13	10	3	3	2	4	2	2	17	15	3	4	7	7	1	2	3	1	....	....	4	1	1	1	1	1	....	1	1	2	2	1	1	1	....	1
Seventh	141	8	13	3	3	5	1	1	3	13	12	7	3	8	10	2	....	5	2	....	1	2	2	....	....	1	2	....	....	4	2	....	....	4	....	1	1
Eighth	....	9	12	1	....	5	4	2	....	18	12	3	1	12	6	4	....	2	4	....	1	2	1	....	....	2	....	1	....	6	3	....	....	1	2	....	....
Ninth	56	10	*6	2	2	3	1	....	1	7	8	1	1	3	2	....	....	2	2	1	....	1	....	....	....	....	....	....	....	1	5	....	....	3	2	....	2
Tenth	5	17	7	....	1	4	5	....	....	4	12	2	1	2	5	1	3	2	2	....	1	1	2	....	....	1	3	....	....	2	1	1	1	2	3	1	....
Eleventh	44	3	2	11	9	....	....	2	5	....	1	4	3	....	....	2	1	1	1	....	4	2	....	1	1	....	....	1	2	1	....	2	4	....	....	3	....
Twelfth	29	17	11	4	1	3	2	5	5	5	7	9	4	4	....	4	3	1	1	....	1	5	....	....	....	....	....	1	....	4	2	2	....	1	2	....	....
Thirteenth	2	17	11	....	1	8	2	....	....	7	6	....	....	7	3	....	....	4	2	....	....	....	....	....	....	1	....	....	1	4	3	....	1	4	4	....	....
Fourteenth	20	58	45	11	9	48	57	3	1	24	16	8	14	7	7	3	5	6	1	3	3	3	1	2	1	2	....	1	1	2	1	2	1	....	....	....	1
Fifteenth	1	9	14	12	8	5	2	8	3	7	6	13	11	5	2	6	5	2	3	2	4	....	1	....	1	....	2	....	2	2	3	2	1	....	5	1	....
Sixteenth	2	7	5	4	5	4	1	2	2	4	4	8	6	....	4	6	5	....	4	....	2	....	....	1	1	....	....	2	1	....	2	2	2	1	1	....	4
Seventeenth	2	3	....	8	10	3	....	9	10	2	3	13	10	....	2	6	10	....	1	2	1	1	....	1	1	....	....	2	....	1	....	1	2	....	....	2	3
Eighteenth	2	7	9	3	5	12	3	5	6	9	12	9	7	5	4	8	3	1	1	2	1	....	2	....	....	1	....	....	1	....	1	1	1	3	....	1	2
Nineteenth	9	11	12	2	5	2	3	1	1	7	12	5	1	4	7	2	1	6	3	1	....	1	1	....	1	1	....	....	....	3	4	1	....	2	1	....	1
Twentieth	....	10	11	1	....	4	2	1	....	16	11	....	1	7	6	1	....	1	1	....	....	3	1	....	....	4	1	....	....	10	3	....	....	3	1	....	....
Twenty-first	....	9	12	4	1	4	5	1	2	13	11	6	4	9	8	2	4	6	3	1	....	1	2	2	....	2	2	1	....	4	3	4	2	2	1	2	....
Twenty-second	9	7	4	6	4	1	3	5	5	14	12	4	3	4	8	3	2	1	....	....	3	3	....	4	1	2	....	2	....	....	3	2	1	1	1	2	1
Twenty-third	1	14	8	5	4	2	4	1	1	8	9	9	6	5	7	3	3	3	2	2	1	1	....	2	....	2	1	....	....	5	4	2	1	1	2	2	1
Twenty-fourth	3	14	14	....	....	17	10	....	....	26	29	....	....	17	13	....	....	5	1	....	....	6	3	....	....	2	1	....	....	3	3	....	....	2	1	....	....
Bay View, not in city wards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	1	1
Sydenham, not in city wards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	499	299	248	96	91	166	135	64	61	298	290	128	106	157	138	65	53	71	41	18	27	40	27	12	13	24	21	9	11	60	54	25	22	40	36	10	21
Bay View, in city wards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....
Sydenham, in city wards	....	....	....	....	....	....	....	....	....	1	....	....	....	2	....	....	....	1	1	....	....	1	....	....	....	....	1	....	....	1	1	....	....	....	....	....	....	....

*Sex unknown.

GENERAL TABLE No. 1—PART II—*Deaths from All Causes, by Wards, Age, Sex, and Color, Including Bay View Asylum, But Not Including Non-Residents,* 1911.

WARDS.	Between 15 and 19 Years.				Between 20 and 24 Years.				Between 25 and 29 Years.				Between 30 and 34 Years.				Between 35 and 39 Years.				Between 40 and 44 Years.				Between 45 and 49 Years.				Between 50 and 54 Years.				Between 55 and 59 Years.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	9	2	....	....	3	3	....	1	5	4	....	....	10	8	....	....	10	7	....	1	6	7	....	1	16	9	....	....	10	8	1	....	10	3	....	1
Second	6	2	....	1	5	3	1	2	6	3	1	....	7	5	....	....	11	9	1	....	9	8	....	1	11	9	....	....	11	7	....	2	10	7	....	....
Third	3	2	....	....	4	1	1	2	7	3	3	3	7	6	1	3	8	7	3	1	8	3	....	2	8	3	3	3	10	8	8	....	10	7	2	2
Fourth	....	2	1	3	1	....	3	3	5	6	6	3	5	5	†4	1	8	3	4	3	13	7	6	4	14	4	1	4	12	11	4	7	9	9	2	3
Fifth	1	3	....	2	1	3	3	7	4	4	10	7	5	3	6	3	7	1	3	2	5	5	9	5	8	3	3	4	8	....	8	8	5	5	3	5
Sixth	2	5	1	3	4	2	5	2	9	9	2	2	10	4	†4	3	9	5	3	2	6	4	3	....	4	10	4	1	14	4	3	1	11	9	4	....
Seventh	1	4	....	....	6	9	2	1	5	11	....	2	7	6	2	3	5	6	1	1	7	8	2	1	10	6	3	3	12	8	4	4	10	9	4	2
Eighth	3	7	....	....	10	5	....	2	13	12	1	....	9	8	1	2	6	4	1	1	10	7	....	1	8	8	....	....	14	11	....	....	7	12	1	....
Ninth	4	2	....	....	3	7	3	1	6	3	2	1	3	5	....	....	7	4	....	2	7	3	....	....	4	6	1	2	8	10	1	2	17	2	†1	2
Tenth	4	2	....	1	8	6	2	1	7	2	5	1	5	4	1	....	9	5	5	2	6	9	1	8	12	19	4	....	11	12	1	3	11	9	1	1
Eleventh	2	....	2	3	2	2	5	....	1	1	6	5	1	3	4	3	6	3	7	4	5	2	4	10	9	4	5	7	8	6	7	8	4	5	4	6
Twelfth	4	2	2	5	7	2	2	6	3	3	5	2	7	....	3	3	5	1	2	4	6	13	2	1	4	5	3	2	15	10	4	2	7	10	2	3
Thirteenth	2	7	....	....	6	7	....	....	6	8	....	1	3	3	....	1	7	4	....	....	5	2	1	1	7	2	....	....	4	6	1	....	12	10	....	....
Fourteenth	....	2	2	4	1	2	7	3	4	2	8	4	5	3	6	7	6	1	7	10	1	5	9	9	5	7	6	4	3	12	7	9	10	9	5	6
Fifteenth	2	6	5	6	2	5	3	4	5	6	7	8	5	7	7	2	4	7	7	4	6	5	4	8	12	8	4	3	8	11	7	6	13	12	2	6
Sixteenth	2	2	4	2	4	3	5	6	8	3	4	9	10	8	4	3	4	5	1	2	9	6	4	6	6	7	3	3	10	13	1	3	6	10	3	1
Seventeenth	....	2	3	6	4	1	7	5	4	1	12	11	2	3	7	11	2	3	16	9	4	2	8	10	3	1	5	7	3	2	10	16	1	1	8	8
Eighteenth	3	1	....	....	8	4	6	5	3	4	3	4	3	5	2	3	5	9	7	5	6	6	2	2	9	9	4	5	12	10	1	2	8	9	2	4
Nineteenth	4	3	2	4	6	6	1	4	7	6	3	2	5	5	1	6	7	2	3	3	10	4	1	4	8	5	3	1	8	7	2	3	8	10	2	1
Twentieth	5	9	....	2	4	8	....	....	11	7	....	....	9	7	....	1	3	3	1	....	6	4	....	....	14	4	....	....	10	7	1	....	15	12	....	1
Twenty-first	....	4	1	4	6	3	2	2	6	6	3	3	6	4	....	3	8	6	1	3	7	11	5	5	4	7	2	4	12	5	2	3	5	10	1	2
Twenty-second	3	2	6	4	4	1	4	3	2	4	6	8	6	4	3	5	5	5	4	9	4	3	9	3	9	2	4	4	12	9	5	5	4	3	6	5
Twenty-third	2	4	1	1	3	5	....	....	7	3	4	3	13	4	3	....	7	2	2	....	7	7	4	1	7	8	3	3	8	5	1	4	7	5	4	1
Twenty-fourth	4	5	....	....	5	8	....	....	9	5	....	....	9	4	1	....	6	4	....	....	6	6	....	....	12	7	....	1	13	7	....	....	6	5	1	....
Bay View, not in city wards	....	2	3	3	2	1	8	8	5	3	13	11	9	1	6	3	8	4	10	6	18	3	11	4	12	1	11	4	24	10	15	3	15	6	9	4
Sydenham, not in city wards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	66	82	33	54	109	97	70	68	148	119	104	90	161	115	66	66	163	110	89	74	177	140	85	87	216	154	72	65	260	199	94	91	221	180	67	64
Bay View, in city wards	1	1	2	2	4	1	4	5	4	3	4	6	2	1	4	....	5	....	7	4	8	3	3	3	6	5	....	1	9	2	6	2	....	....	2	....
Sydenham, in city wards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....

†Chinamen.

GENERAL TABLE No. 1—PART III—*Deaths from All Causes, by Wards, Age, Sex, and Color, Including Bay View Asylum, But Not Including Non-Residents,* 1911.

WARDS.	Between 60 and 64 Years.				Between 65 and 69 Years.				Between 70 and 74 Years.				Between 75 and 79 Years.				Between 80 and 84 Years.				Between 85 and 89 Years.				Between 90 and 94 Years.				Between 95 and 99 Years.				Between 100 and 109 Years.				Totals.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	13	11	....	....	14	12	....	....	7	5	....	....	6	6	....	....	5	8	....	....	2	7	....	....	....	....	....	....	1	....	....	....	....	....	....	....	204	164	4	5	377
Second	4	11	1	....	5	11	1	....	10	12	2	....	4	8	1	....	6	6	....	....	2	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	194	168	12	8	382
Third	7	5	2	1	3	6	1	....	11	7	2	....	2	3	....	....	2	1	1	....	1	1	....	....	1	1	....	....	1	2	....	....	....	....	....	....	156	121	35	22	334
Fourth	11	6	3	2	2	7	2	1	7	10	3	1	4	8	2	3	4	1	....	....	3	1	2	....	1	1	....	1	....	....	....	....	....	....	....	....	131	103	79	92	405
Fifth	2	2	2	6	7	4	9	1	5	1	5	2	1	4	1	1	2	4	1	2	....	....	....	1	2	....	....	....	....	....	1	....	....	....	....	....	105	69	86	77	337
Sixth	13	8	2	2	12	10	1	....	9	9	....	1	8	13	1	1	9	4	....	....	2	3	....	....	1	4	....	....	....	1	....	....	1	....	....	....	172	147	45	33	397
Seventh	5	8	....	1	7	13	....	2	14	14	1	3	10	5	....	....	4	7	....	....	1	3	....	....	....	1	....	....	....	....	....	....	....	....	....	....	154	162	33	34	383
Eighth	16	10	....	1	14	10	1	....	7	8	....	....	5	18	....	....	11	15	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	191	181	16	9	397
Ninth	14	12	....	....	19	18	....	1	5	13	....	....	12	12	....	1	5	12	....	....	1	2	....	....	1	3	....	....	....	....	....	....	....	....	....	....	146	140	12	18	316
Tenth	14	9	....	3	14	12	1	2	8	15	2	2	9	11	....	2	11	7	....	2	6	4	....	....	2	3	....	....	....	....	....	....	....	....	....	....	172	169	28	35	404
Eleventh	13	6	8	4	5	18	2	7	16	12	3	4	9	12	....	4	12	15	....	....	2	8	1	....	1	3	....	1	....	....	1	1	....	....	....	....	103	104	85	96	388
Twelfth	9	17	1	1	17	15	1	....	18	23	1	2	10	10	1	2	5	13	....	1	1	4	....	....	....	6	....	....	1	....	....	....	....	....	....	....	159	159	54	48	420
Thirteenth	8	17	....	1	15	10	1	....	14	11	....	....	5	11	....	....	3	6	....	....	6	4	....	....	1	1	....	....	....	1	....	....	....	....	....	....	156	141	3	7	307
Fourteenth	11	11	3	3	11	15	1	4	14	11	7	2	13	14	....	2	4	11	1	....	4	3	....	....	1	1	....	....	....	1	....	1	....	....	....	1	243	238	102	105	688
Fifteenth	9	8	5	2	12	6	3	....	16	12	2	3	9	16	1	1	3	13	1	2	3	1	....	1	....	1	....	1	....	....	....	....	....	1	....	....	139	162	103	92	496
Sixteenth	12	12	2	1	14	9	2	1	9	15	....	....	14	11	....	4	7	13	....	....	3	7	2	....	1	1	....	1	....	....	....	....	....	....	....	....	135	146	60	70	411
Seventeenth	5	2	9	11	8	5	3	6	4	4	3	10	3	6	3	6	2	8	4	6	1	2	3	4	....	2	....	3	....	....	....	....	....	....	....	1	56	51	145	177	429
Eighteenth	12	12	3	3	7	8	1	2	10	13	....	1	5	13	1	....	8	8	1	....	1	4	1	....	....	1	....	....	....	1	....	....	....	....	....	....	138	149	63	62	412
Nineteenth	12	15	1	2	12	22	....	....	18	18	3	1	10	15	....	1	7	6	....	....	6	5	....	....	....	5	....	....	....	2	....	....	....	....	....	....	165	179	34	42	420
Twentieth	11	11	....	....	16	16	....	....	9	14	1	....	13	10	....	....	11	11	....	....	7	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	202	163	6	5	376
Twenty-first	8	6	....	1	7	9	....	1	10	10	2	....	3	4	....	....	3	3	....	....	2	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	137	137	42	44	360
Twenty-second	8	2	2	1	9	6	2	1	5	3	5	1	4	6	....	....	4	6	1	....	3	4	....	....	....	....	....	....	....	1	....	....	....	....	....	....	113	97	82	70	362
Twenty-third	12	4	2	3	8	10	....	....	5	8	1	2	2	3	....	1	3	3	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	133	109	51	36	329
Twenty-fourth	13	8	....	....	7	10	....	....	7	7	....	....	4	8	....	....	3	3	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	197	163	2	1	363
Bay View, not in city wards	10	5	6	7	13	14	6	3	16	4	4	3	7	10	5	3	5	5	2	2	5	2	2	1	....	1	....	1	....	1	....	....	....	....	....	....	158	74	112	68	412
Sydenham, not in city wards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	261	218	52	56	258	276	38	32	254	250	47	38	172	237	16	32	139	189	12	15	65	72	11	7	12	39	....	8	3	10	1	2	1	1	1	2	3859	3496	1204	1256	9905
Bay View, in city wards	2	1	2	....	2	2	....	1	2	....	4	2	3	....	....	1	....	....	....	1	....	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....	49	20	39	30	138
Sydenham, in city wards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	7	....	....	10

GENERAL TABLE No. 2—*Deaths of Children Under Five Years of Age in Each Ward, Year* 1911.

WARDS.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	11	14	1	1	8	9	....	....	26	27	1	....	12	9	1	....	9	....	....	....	1	1	....	....	2	....	....	....	69	60	3	1	133
Second	17	8	....	1	10	5	1	....	31	29	1	....	18	12	1	1	3	4	....	....	1	....	....	....	....	2	....	....	80	60	3	2	145
Third	15	5	2	2	7	8	1	....	22	24	3	1	11	10	1	....	3	1	1	2	....	1	....	1	....	1	....	1	59	51	8	5	123
Fourth	6	7	7	10	7	2	10	13	5	7	14	20	2	2	4	2	3	....	....	3	3	2	....	2	2	1	....	....	28	21	35	50	134
Fifth	7	8	6	6	2	2	4	1	13	5	5	5	8	4	4	3	2	1	....	1	1	1	1	1	....	2	....	1	33	23	20	18	94
Sixth	13	10	3	3	2	4	2	2	17	15	3	4	7	7	1	2	3	1	....	....	4	1	1	1	1	1	....	1	47	39	10	13	109
Seventh	8	13	3	3	5	1	1	3	13	12	7	3	8	10	2	....	5	2	....	1	2	2	....	....	1	2	....	....	42	42	13	10	107
Eighth	9	12	1	....	5	4	2	....	18	12	3	1	12	6	4	....	2	4	....	1	2	1	....	....	2	....	1	....	50	39	11	2	102
Ninth	10	*6	2	2	3	1	....	1	7	8	1	1	3	2	....	....	2	2	1	....	1	....	....	....	....	....	....	....	26	19	4	4	53
Tenth	17	7	....	1	4	5	....	....	4	12	2	1	2	5	1	3	2	2	....	1	1	2	....	....	1	3	....	....	31	36	3	6	76
Eleventh	3	2	11	9	....	....	2	5	....	1	4	3	....	....	2	1	1	1	....	4	2	....	1	1	....	....	1	2	6	4	21	25	56
Twelfth	17	11	4	1	3	2	5	5	5	7	9	4	4	....	4	3	1	1	....	1	5	....	....	....	....	....	1	....	35	21	23	14	93
Thirteenth	17	11	....	1	8	2	....	....	7	6	....	....	7	3	....	....	4	2	....	....	....	....	....	1	....	....	....	1	44	24	....	2	70
Fourteenth	58	45	11	9	48	57	3	1	24	16	8	14	7	7	3	5	6	1	3	3	3	1	2	1	2	....	1	1	148	127	31	34	340
Fifteenth	9	14	12	8	5	2	8	3	7	6	13	11	5	2	6	5	2	3	2	4	....	1	....	1	....	2	....	2	28	30	41	34	133
Sixteenth	7	5	4	5	4	1	2	2	4	4	8	6	....	4	6	5	....	4	....	2	....	....	1	1	....	....	2	1	15	18	23	22	78
Seventeenth	3	....	8	10	3	....	9	10	2	3	13	10	....	2	6	10	....	1	2	1	1	....	1	1	....	....	2	....	9	6	41	42	98
Eighteenth	7	9	3	5	12	3	5	6	9	12	9	7	5	4	8	3	1	1	2	1	....	2	....	....	1	....	....	1	35	31	27	23	116
Nineteenth	11	12	2	5	2	3	1	1	7	12	5	1	4	7	2	1	6	3	1	....	1	1	....	1	1	....	....	....	32	38	11	9	90
Twentieth	10	11	1	....	4	2	1	....	16	11	....	1	7	6	1	....	1	1	....	....	3	1	....	....	4	1	....	....	45	33	3	1	82
Twenty-first	9	12	4	1	4	5	1	2	13	11	6	4	9	8	2	4	6	3	1	....	1	2	2	....	2	2	1	....	44	43	17	11	115
Twenty-second	7	4	6	4	1	3	5	5	14	12	4	3	4	8	3	2	1	....	3	3	....	4	1	2	....	2	....	....	27	33	22	19	101
Twenty-third	14	8	5	4	2	4	1	1	8	9	9	6	5	7	3	3	3	2	2	1	1	....	2	....	2	1	....	....	35	31	22	15	103
Twenty-fourth	14	14	....	....	17	10	....	....	26	29	....	....	17	13	....	....	5	1	....	....	6	3	....	....	2	1	....	....	87	71	....	....	158
Total	299	248	96	91	166	135	64	61	298	290	128	106	157	138	65	53	71	41	18	27	40	27	12	13	24	21	9	11	1055	900	392	362	2709

*Sex unknown.

TUBERCULOSIS.

TABLE NO. 1—*Total Death Rate and Death Rates for White and Colored Population, Based on Census of* 1910, *from* 1903 *to* 1911, *Inclusive.*

YEAR.	*Estimated Population.	Total Deaths.	Death Rate per 1,000 of Population.	White. No. of Deaths.	White. Death Rate per 1,000.	Colored. No. of Deaths.	Colored. Death Rate per 1,000.	Chinamen.
1903	524,407	1,323	2.523	906	2.045	416	5.109	1
1904	529,423	1,473	2.781	1,022	2.283	451	5.502	...
1905	534,439	1,423	2.662	940	2.079	482	5.842	1
1906	539,455	1,461	2.704	988	2.164	470	5.659	3
1907	544,471	1,441	2.647	950	2.061	490	5.862	1
1908	549,497	1,379	2.509	926	1.989	453	5.385	...
1909	554,513	1,403	2.530	909	1.934	491	5.799	3
1910	559,529	1,385	2.475	885	1.866	478	5.610	2
1911	564,547	1,344	2.381	846	1.765	497	5.795	1

*Corrected to July 1 of each year, according to census of 1910.

TUBERCULOSIS.

TABLE NO. 2—*Deaths Due to Tuberculosis Each Month in the Year 1911, by Sex and Color.*

MONTHS.	Sex.		Color.		Total.
	Male.	Female.	White.	Colored.	
January	64	50	81	33	114
February	73	55	77	51	128
March	79	54	88	45	133
April	69	50	82	37	119
May	75	58	76	57	133
June	68	55	71	52	123
July	54	42	59	37	96
August	53	45	56	42	98
September	58	32	61	29	90
October	62	39	61	40	101
November	54	43	62	35	97
December	60	52	72	40	112
Total	769	575	846	498	1,344

TUBERCULOSIS.

TABLE No. 3—*Deaths Due to Tuberculosis, Arranged According to Occupation, Year* 1911.

Artists	1	Elevator boys	1
Agents (insurance)	3	Furniture manufacturers	1
Agents (real estate)	1	Foremen	3
Architects	1	Forewomen	1
Bakers	3	Fish dealers	1
Barbers	5	Factory hands	6
Bartenders	5	Farmers	3
Bellboys	2	Farm laborers	1
Butchers	10	Firemen (stationary engine)	5
Bankers	1	Grocers	6
Builders and contractors	2	Gold and Silversmiths	3
Bricklayers	2	Gasfitters	1
Blacksmiths	3	Glassblowers	3
Boxmakers	3	Harnessmakers	1
Bootblacks	3	Hairdressers	1
Bookkeepers, Clerks	50	Hatters	2
Broom makers	2	Hotel proprietors	1
Boat captains	1	Housewives	168
Bookbinders	3	Hodcarriers	1
Carpenters	14	Hucksters	9
Charwomen	1	Hostlers	2
Chauffeurs	1	Inspectors	1
Chambermaids	5	Ironworkers	1
Cement workers	1	Janitors	2
Chemical manufacturers	2	Jewelers (dealers)	2
Confectioners	1	Laborers	188
Carriage and wagon builders	1	Launderers or laundresses	39
Cabinetmakers	6	Laundry work(steam)	2
Collectors	1	Lawyers	2
Canmakers	4	Leather workers	1
Cigarmakers	6	Locksmiths	1
Cooks	21	Machinists	7
Coopers	2	Marble polishers	1
Cutters	2	Manufacturers	1
Cloth pressers	1	Moulders	1
Clothing trimmers	1	Merchants	3
Drivers	25	Metal workers	1
Dressmakers and seamstresses	16	Messengers	2
Draughtsmen	1	Ministers	1
Druggists	1	Musicians	3
Dentists	1	Nurses	2
Domestics	96	Newspaper carriers	1
Electrical workers	1	Nickel platers	1
Engineers (electrical)	1	Oyster shuckers	1
Engineers (mechanical)	1	Opticians	1
Engineers (stationary engine)	3	Operators	2

(Continued on Page 84.)

TUBERCULOSIS.

TABLE No. 3 (Continued)—*Deaths Due to Tuberculosis, Arranged According to Occupation, Year* 1911.

Painters	12	Shoemakers	7
Piano makers	1	Stonecutters	5
Plasterers	3	Stenographers	1
Pavers	1	Sewing machine operators	3
Paperhangers	3	Storekeepers	1
Physicians	2	Servants	15
Plumbers	5	Superintendents	1
Policemen and watchmen	9	Stevedores	11
Postoffice employees	3	School children	36
Porters	8	Tailors and tailoresses	17
Potters	2	Tanners	2
Printers and engravers	6	Teamsters	5
Processors	1	Teachers	4
Religieuse	2	Tinners	4
Salesmen	6	Telegraph operators	1
Saleswomen	1	Telephone operators	2
Sailmakers	1	Traveling salesmen	1
Seamen	7	Upholsterers	2
Steelworkers	1	Varnishers	1
Solicitors	1	Waiters	28
Steam railway employees	9	Watchmakers	1
Street railway employees	9	Weavers	2
Stonemasons	2	No occupation	294
Shirt factory hands	1		

Social Condition.

Married	557	Unknown	12
Single	646	Divorced	5
Widows	68		
Widowers	56	Total	1,344

TABLE No. 4—*Deaths According to Wards, Sex, Color and Calendar Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	2				4				1	5							6	2			1	4	1				1	1			1	1			4	1			1	1			1	1		1	26	14		2
Second	2	2			4	1			2	1		1	1	1	2						1						1				1	1	3				1	2			1	1			3	1		1	16	14	2	3
Third					2	1			2	1			2		1						1		1		1		1										2				2		4		1		18	3	5	4
Fourth	1		1		1		1		3	1		1	1	1			1				1	2			2	1	1	1	1	1	4	1		4			3	2		1	1	2		2		3	1	13	9	16	10
Fifth	1		1		1		1	3					2	1			2	2			1	2			1	3	3				1			2	1		3	1	3	1	1		1		1	1		2	12	6	10	16
Sixth	3	2			1	3	1		4	2		1	2	2	2	1	1	1			2	1	1		3	1	1				2					2	1	2		1	2	1	1	1	2	1	1	17	21	10	6
Seventh	2	5	1		4	2			2				3	3			1	2	1	1	2		1	1	1				1	2			2	2			3	1			1	1			2	2	1		22	23	3	2
Eighth	1	1				2			7	2			3	5			1				3	1			2	2			2	2			1		3			1	3	1			1		3	2			32	21	1	3
Ninth	3		1		1		1	1				1	2				1	1	1		2		1		4	2			1	2			1	1			1	2			1	1			2	2			20	13	3	3
Tenth	2				2	3	2	1	2	2			4		1		1	2	1		3		1	1	3	1	1		1		1		4				3	3	1			1	2	1	3			2	28	12	10	5
Eleventh			2			1	3		2				1		1	2		2	2		1		1	2			2	1			3	1		2	2	1		2			1	1				1		1	6	5	16	11
Twelfth	1	1	1		2	3	2	1			1		3	1	1	1					2	1	1	1	1	1	2		2	1	3	1		1	1	1	2	1	2	1	2	1	1		1	1			15	15	14	8
Thirteenth	4				2	1			4	1			2				1				5				1	2	1			2	2			1				1				1	2			19	14		1
Fourteenth		2	3	1			2	1	2	1	4	5					1		3	4	3	1	2	2			3	4	1			1			2	2	2			1		2	1	2	1	2	2	12	5	23	23
Fifteenth	2	1		3	1	2	3	4		2	5		2	2	2		1	1	1	2	2	1	2	1		5	4	1	1			1	3	1			3		2	1		3	1	1	3	3	2	2	18	21	23	16
Sixteenth	5		1			1	1	3		2	2	2	3					2	1			3		2	1	1	1	2	2		2		1	1	1			2	3		4	2	2		1			12	12	15	15
Seventeenth			5	1				2		2	2	4		1		3	1			1	4	1		4	2			2	1			1	3	2	2				2	1	2		1	3	4	4	26	29
Eighteenth	2	2			2			2	3	1			1	3	3	1	3	2			1	3			2	1	1		2	3			2	2			1	1	2		1	2			1			2	21	18	6	5
Nineteenth	2	1		1	2	1	1	1		1	1	1	1	2		1	3	3			1	1	2	1	2	1			4	2	4	2	1	1			1	4	1	1	4				3	1		1	23	18	8	11
Twentieth	2	2			2	1			1				1	3			7					4						3			1	2	1				1			2	3	1		2	3		1	26	17	1	1
Twenty-first	1	2		2	2				1	3	3		2	1			1	2			3	2	1			1			1	2			1	3	1	1		1	4		2	3	2			19	20	2	10
Twenty-second	1	2	1	1		2			1	1			1	2	1	1	2	2	2		1	1	1			1			1	1	2	1					1	2			1	1	1		2			1	13	13	8	10
Twenty-third	1	4		1		3	3	2	4		1	1	2		1		1	2	3		2	3	1						1	1	1	1	2	1				1			1	2	1			1		2	1	18	14	12	8
Twenty-fourth	3	1	1		4	3			3	1			2	3			2	2			2	3			3				4				1				2	1									26	14	1	
Bay View	5	1		5	9	1	6	2	9	2	8	3	6	4	6	1	11	4	9	5	3	2	10	3	6	3	1	2	5		4	1	3		2	2	3	1	1		3		4	1	1	2	3	2	64	20	54	27
Sydenham																																																		
Total	46	35	18	15	46	31	27	24	55	33	24	21	48	34	21	16	46	30	29	28	37	34	31	21	35	24	19	18	32	24	21	21	42	19	16	13	36	25	26	14	33	20	21	14	44	28	16	24	500	346	260	220

TABLE No. 5—*Deaths by Ages, Sex, Color and Average Age at Death, and Social Condition, Year* 1911.

Ages.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 month	1																								1																				2							
Between 1 and 3 months										1						1						1			1				1	1														1		3		2	
Between 3 and 12 months	1		1		1				2	1	1			1	2	2			2	1				1	3				1			1	1		1		1						1	1	11	6	7	5
Between 1 and 2 years	1	4			1				1	1	1			1				2	1	1	1	1				1	1			2	1	1			1		1					1		1		11	8	4	5
Between 2 and 3 years	1	1				1			1	1								1					1	1	1		1		2	2			1													7	4	2	5
Between 3 and 4 years		1	1												1	1					1	1																					1	1	2	2	2
Between 4 and 5 years		3	1	1												2	1				1	1																					1	2	3	1	6
Between 5 and 9 years	1	1		1	1				2	2			1	2		2		1			1	1			1			1	1	1			1	1		1			2		1	1			1	1	8	8	6	6
Between 10 and 14 years		1		1	1		3	2		1		2						1	1						1	1			3		1				1							1				4	5	5	10
Between 15 and 19 years	3	1	1	4	1	1	1	1		2	1	3		4		2			4	4	3	3	4	5	1	3	1	2	1		1	1	2	3	1	2		1	3	2	4	1	2	1		3		4	15	22	10	11
Between 20 and 24 years	6	3	3	3	5	2	3	4	6	5	2	1	4	7	6	1	4	7	3	5	5	7	6	2	5	1	1	1	5	1	2	5	3	1	2	3	5	2	5	4	4	5	4	1	3	6	1	6	55	47	38	36
Between 25 and 29 years	2	2	2	2	4	7	4	4	6	3	4	3	6	4	4	1	4	5	6	3	4	8	6	2	4	4	6	7	1	3	5	2	4	4	2		6	2	5	1	6	5	4	3	10	2	3	3	57	49	51	41
Between 30 and 34 years	5	1	1	1	6	4	3	4	11	9	4	2	5	4	2	3	5	5	3	4	4	3	2	2		4	2		2	3	4	1	4	1	1	1	8	3			7	2	2	1	5	2	1	3	62	41	25	22
Between 35 and 39 years	3	2	1	2	5	3	4	4	4	1	3	2	8	2	7	1	7	1	3	3	4	3	2		4	2	3	3	7	1	3	2	4		3	2	3	4	3	1	4	4	2	2	5	5	3	1	58	28	37	23
Between 40 and 44 years	6	3	2		4	1	3		3		2		2	3		1	4		4	1	4	1	2	3		2	3		6	4	2	1	5	4	2	1	3	2	2	3	1	4		1	7	1	2	2	46	25	24	13
Between 45 and 49 years	3	4	3		4	3	1		4	1	3	2	7	4			6	2		2	3	1	3		6	3		1	1	3		1	5			1	2	6	1		1	3	1	2	2	1		1	44	31	12	10
Between 50 and 54 years	7	4	1		6	3	2	1	7	3	3	2	5	2	1		7	2	1	1	5	1	2	1	3			1	1	1			7			1	2				1	3				1		5	2	1		56	21	13	6
Between 55 and 59 years	2	3	1		4	2		1	3	1	1	1	2			1	3	2	2	2		1			1	2			1	1					1		2			1		1	3	2	2		20	17	9	7
Between 60 and 64 years	2				2		1		6		1		3	1							1	1			1		1			1			2	1	2		2	1	2		2	1	1		1	1	1	1	21	7	7	3
Between 65 and 69 years						2	1			1			1	1			1	1			1	1	1		1	1							1	1				2	1				1		1	1			9	6	2	1
Between 70 and 74 years		1			1	1							1				1				1	2			2	1							1									1	1				8	6	1	2
Between 75 and 79 years	2					1																1				1																					2	5		1
Between 80 and 84 years																														1																	1	1		
Between 85 and 89 years																																1															2			
Between 90 and 94 years																																																		
Between 95 and 99 years																																																		
Total	46	35	18	15	46	31	27	24	55	33	24	21	48	34	21	16	46	30	29	28	37	34	31	21	35	24	19	18	32	21	21	21	42	19	16	13	36	25	26	14	33	29	21	14	44	28	16	24	500	340	260	220

Average Age at Death.

	White.	Colored.	Total Deaths.
	Years.	Years.	
All ages	35.438	29.233	1,344
Five years and under	1.709	2.053	101
Five to nineteen years, inclusive	14.716	15.183	151
Twenty years and over	40.041	35.624	1,092
Single	25.384	24.858	646
Married	41.659	35.849	557
Widows	53.056	46.408	69
Widowers	52.115	54.578	55
Divorced	41.405	34.000	5
Unknown social condition	50.250	37.500	12

TUBERCULOSIS.

TABLE No. 6—*Deaths Each Month from Pulmonary Tuberculosis, According to Color, from* 1900 *to* 1911, *Inclusive.*

MONTHS.	1900		1901		1902		1903		1904		1905		1906		1907		1908		1909		1910		1911	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
January	56	20	91	27	72	29	69	33	83	37	70	41	63	27	105	47	101	39	78	45	72	39	81	33
February ...	54	32	69	22	46	26	67	24	105	37	58	25	97	22	98	40	70	37	68	39	74	41	77	51
March.....	75	39	79	33	69	31	74	35	94	40	77	26	84	41	106	62	95	40	98	51	98	39	88	45
April.....	48	36	62	38	78	36	79	36	85	44	75	42	72	32	72	41	83	56	94	51	81	48	82	37
May	55	25	55	38	69	48	60	40	75	49	75	40	68	36	76	43	80	34	76	33	73	46	76	57
June	52	24	62	23	56	44	64	26	73	32	75	31	64	28	75	39	72	33	60	35	60	34	71	52
July	55	26	65	28	48	24	60	37	69	41	56	49	62	40	64	43	85	52	57	42	73	44	59	37
August	69	24	56	30	72	18	53	34	62	31	54	33	48	34	76	37	80	32	88	41	64	44	56	42
September..	50	37	60	31	69	37	70	22	69	42	70	31	62	25	60	28	51	36	65	46	77	31	61	29
October	67	22	58	30	65	27	64	28	67	34	56	33	83	42	73	32	67	34	73	46	63	40	61	40
November ..	72	21	60	25	75	24	71	31	70	27	76	36	84	40	65	26	68	28	72	27	77	36	62	35
December ..	70	27	64	32	62	34	81	29	62	21	69	38	93	48	81	51	74	32	80	35	73	38	72	40
Totals...	723	333	781	357	781	378	811	375	914	435	811	425	880	415	951	489	926	453	909	491	885	480	846	498

PNEUMONIA (LOBAR).

TABLE NO. 1—*Total Death Rate and Death Rates for White and Colored Population, Based on Census of* 1910, *from* 1903 *to* 1911, *Inclusive.*

YEAR.	*Estimated Population.	Total Deaths.	Death Rate per 1,000 of Population.	White. No. of Deaths.	White. Death Rate per 1,000.	Colored. No. of Deaths.	Colored. Death Rate per 1,000.
1903	524,407	789	1.506	518	1.169	271	3.328
1904	529,423	892	1.685	587	1.312	305	3.721
1905	534,439	800	1.497	530	1.172	270	3.272
1906	539,455	696	1.290	445	0.975	251	3.022
1907	544,471	743	1.365	475	1.030	268	3.206
1908	549,497	615	1.101	385	0.827	230	2.734
1909	554,513	705	1.271	475	1.010	230	2.716
1910	559,529	677	1.210	497	1.048	180	2.112
1911	564,547	684	1.212	441	0.921	243	2.834

*Corrected to July 1 of each year, according to census of 1910.

PNEUMONIA (LOBAR).

TABLE No. 2—*Deaths According to Wards, Sex, Color and Calendar Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	1	2	1	....	1	....	....	....	3	....	....	....	1	3	....	....	2	....	....	....	2	2	....	....	....	....	....	....	1	1	....	....	....	....	....	1	3	....	....	1	2	....	....	3	2	....	....	16	15	1	....
Second	....	2	....	1	4	....	....	....	....	2	1	....	1	2	....	....	3	3	....	....	1	1	1	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	2	1	....	....	3	1	....	....	15	13	2	1
Third	1	2	1	1	1	3	....	....	3	1	1	....	1	2	....	....	1	1	....	....	....	1	....	....	....	....	....	....	....	....	1	1	....	....	1	1	....	....	....	....	1	....	....	....	....	....	9	11	5	2
Fourth	....	2	....	....	....	1	....	....	2	1	....	....	1	....	....	....	1	1	....	....	....	....	....	....	....	....	1	....	....	1	....	1	1	....	1	1	1	1	....	....	....	1	3	2	....	1	2	7	7	6	6
Fifth	1	2	....	1	....	1	....	....	1	1	....	2	....	1	....	3	1	1	....	....	....	1	....	....	....	....	1	....	....	1	....	....	....	1	....	1	....	1	....	....	....	....	....	....	....	....	6	7	3	6
Sixth	5	1	....	1	1	1	....	2	2	1	....	....	1	1	....	....	1	1	....	....	1	....	....	....	2	....	....	....	....	1	1	....	....	1	....	1	1	....	....	1	1	1	2	....	1	1	13	10	5	4
Seventh	3	....	2	....	....	1	....	1	1	....	1	....	....	3	1	....	3	....	1	1	1	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	1	....	....	1	....	....	2	....	1	9	7	3	4
Eighth	2	2	....	....	2	....	....	....	3	1	....	1	1	1	....	....	2	1	....	....	....	1	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	1	1	....	1	13	10	1	2
Ninth	4	4	....	....	....	....	....	1	....	2	....	3	2	1	....	2	1	1	....	....	1	....	....	....	....	1	....	....	....	....	....	....	2	1	....	....	1	....	....	1	1	1	....	....	1	1	14	12	1	1
Tenth	2	5	....	1	2	3	1	....	2	1	2	1	2	....	....	....	2	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	2	1	....	3	....	....	12	10	3	1
Eleventh	3	4	....	7	....	1	....	1	2	1	1	....	1	....	....	1	1	1	....	....	1	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	1	1	....	1	10	6	8	10
Twelfth	1	2	2	....	....	....	1	....	2	1	....	1	....	1	....	....	2	1	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	2	1	1	....	1	....	2	1	....	....	8	7	7	2
Thirteenth	2	....	....	....	....	....	....	....	....	2	....	1	....	....	....	....	1	1	....	....	....	1	....	....	1	....	....	....	....	....	1	....	....	....	....	....	2	....	....	1	2	....	....	1	....	....	....	9	7	....	....
Fourteenth	1	2	....	1	1	1	1	1	1	2	2	3	4	3	3	....	1	....	1	....	1	....	....	....	....	2	1	....	1	....	....	1	....	....	1	....	....	1	....	....	1	....	....	1	....	1	10	10	12	7
Fifteenth	1	1	2	....	....	1	....	1	5	....	1	3	....	1	3	4	1	1	....	....	1	....	....	....	....	....	....	....	2	2	....	....	1	....	....	1	....	1	....	....	....	....	1	1	2	3	9	6	11	14
Sixteenth	2	3	....	....	....	1	....	2	1	1	1	....	2	....	1	2	1	....	1	....	....	1	....	....	1	....	....	....	....	1	1	....	....	1	....	1	....	....	....	....	....	1	....	....	1	7	8	3	7
Seventeenth	....	1	2	2	....	....	2	1	3	2	2	1	2	....	3	1	....	....	....	2	....	....	1	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	....	....	2	1	5	4	14	10
Eighteenth	1	3	1	1	....	....	....	....	....	....	....	1	1	1	....	3	....	....	1	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	1	2	....	2	2	1	....	4	7	7	7
Nineteenth	....	1	....	....	2	....	....	1	1	....	....	....	....	3	....	....	....	1	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	2	1	....	....	6	7	1	2
Twentieth	4	1	....	....	1	2	....	1	....	....	....	....	....	2	....	....	2	3	....	....	1	....	....	....	1	1	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	2	1	....	....	16	8	....	....
Twenty-first	....	2	2	1	....	1	1	....	1	3	1	1	1	1	1	1	....	1	1	1	1	....	....	....	....	....	....	....	....	....	1	....	1	....	2	....	1	....	....	....	....	....	....	....	....	1	1	6	8	....	5
Twenty-second	2	....	1	2	....	2	2	....	....	1	2	1	....	1	....	....	1	....	1	1	....	1	....	1	1	1	....	....	....	....	....	....	....	2	....	....	....	1	1	....	1	3	1	....	....	4	....	3	5	11	9
Twenty-third	....	....	....	....	....	....	....	....	2	2	....	1	2	....	....	....	2	....	1	....	1	....	....	1	....	1	....	....	....	....	2	1	....	....	1	....	....	....	....	1	1	2	....	1	....	....	1	10	3	5	5
Twenty-fourth	3	1	....	....	....	2	....	....	2	....	....	....	1	1	....	....	5	....	....	....	....	....	....	....	2	....	....	....	....	1	....	....	1	2	....	....	1	1	....	....	1	1	....	....	....	....	9	10	....	....
Bay View	....	....	....	....	1	....	1	....	1	....	1	....	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	3	2	3	1
Sydenham	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	39	43	14	19	16	21	9	11	37	26	15	17	27	31	14	17	27	21	15	8	11	7	9	2	5	9	6	2	3	2	7	6	10	6	5	3	16	12	11	4	13	14	14	9	25	20	14	12	229	212	133	113

TABLE No. 3—*Deaths According to Age, Sex, Color and Calendar Months, Also Average at Death, Year* 1911.

AGES.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 month	2	2	1	1					1	1																											2	1			2				1				8	3	1	2
Between 1 and 3 months	2		1		1	2					1	1	1		1																														5	4	2	1
Between 3 and 12 months	4	5	3	2	3	3			1	2	2	3	1	2	5		1	3	3	4	1		1	1			2	1	2		2		3	1	1	1	1	2	1		1		2	1			1	1	17	26	16	16
Between 1 and 2 years	1	1		2								1	4	2	4	2	2	5	4		1		1	3			1									2	1		1		2	1			1	1	12	18	10	13
Between 2 and 3 years	1	1		1					1	3		1		3	1	2		1	2			1																								1		1	10	5	5	3
Between 3 and 4 years		1								1				1				1	1					1													1									1	4	2	1	1
Between 4 and 5 years	1	2				1	1		1		1	1			2																														1	3	5	2	2
Between 5 and 9 years								1				1	4	1	1		2		1	1	2																1									1	10	2	3	3
Between 10 and 14 years					1		1	1						1	1				1						1	1			1																		1	1	4	3
Between 15 and 19 years	2	1	1			1				1			1	1	2						1		1												1										1	1	2	5	5	6
Between 20 and 24 years			1	2	1	1		1	2			2			2		1	1	1	1									3	1				1				1		1					3		6	2	10	9
Between 25 and 29 years	1		4	2	2	2		1	1	1	2	1	1		1	1	1								1	1	1									2			1	1	3		1		2	1	10	5	13	6
Between 30 and 34 years	1				1	2	3	1	1	1	3		1	1	1	3	1	1									1							2				3		1	1	2	1		2	14	5	9	8
Between 35 and 39 years	1			2	1	1	4		2	2		1	1	3	2	2	1				1			1	2				1							1	2	1	1			1	1			8	8	10	10
Between 40 and 44 years	1	1	1	1			2		3	1	1			1		1	1	1	1			1		1					1							1				1				1	1	1	1			9	5	8	3
Between 45 and 49 years	1	1		1	2	1			1	1			2			1	3			2		1												1		1				1		2		2		13	4	7	3
Between 50 and 54 years	1	2	1	2				1	2	2	1	1	2	2		3		1	3			1				1											1	1		1		1	2			8	10	7	7
Between 55 and 59 years	4	8		1		1			4	2	1		3				1		1		1			1													2				1	2		3		1	1	19	12	5	2
Between 60 and 64 years	4	2			1				1	2	1		3	5			1				2	1			1	1											1	1			3	2		2	1	1	2	18	15	1	4
Between 65 and 69 years	4	6			1	2			5	4	1		1	1			1	1	1		1	1			1	1		2					1	2			2								4	3	1		23	21	4	
Between 70 and 74 years	1	4		2	1	3		1	4	2				3	1	1	2	1	1	1					1													2				3			1	3			9	22	2	5
Between 75 and 79 years	4	2			1	2			1	2							2	1			1	1			1												1	1							1				10	14		1
Between 80 and 84 years	3	4	1		1				1				1				2	2			1																1	1							2				8	12	1	1
Between 85 and 89 years									2																												1	1												4		
Between 90 and 94 years													1								1								1																		1	1	2		1
Between 95 and 99 years																																																				
Between 100 and 117 years																																																			
Total	39	43	14	19	16	21	9	11	37	26	15	17	27	31	14	17	27	21	15	8	11	7	9	2	5	9	6	2	3	2	7	6	10	6	5	3	16	12	11	4	13	14	14	9	25	20	14	12	229	212	133	110

Average Age at Death Due to Pneumonia, and Total.

	Av. Age.	*Total.*
Of all deaths (white and colored)	35.495	684
Of all deaths, five years and under (white and colored)	1.318	204
Of all deaths, between five and nineteen years, inclusive (white and colored)	23.172	49
Of all deaths over twenty years (white and colored)	53.073	431

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PNEUMONIA (LOBAR).

TABLE NO. 4—*Deaths According to Occupation, Year* 1911, *Also According to Social Condition.*

Attorneys	1	Junk dealers	1
Accountants	1	Laborers	73
Agents (commission)	1	Launderers or laundresses	11
Agents(real estate)	1	Laundry workers (steam)	1
Agents (not specified)	2	Liquor dealers	1
Bakers	1	Machinists	1
Barbers	3	Manufacturers	2
Bartenders	2	Moulders	1
Butchers	3	Merchants	6
Builders and contractors	2	Managers	2
Brassworkers	2	Mariners	1
Bricklayers	3	Oyster shuckers	2
Blacksmiths	3	Operators	1
Bookkeepers, clerks	6	Photographers	1
Bookbinders	1	Preacher	1
Carpenters	4	Pavers	1
Chambermaids	1	Paperhangers	2
Candymakers	1	Physicians	2
Coal dealers	1	Plumbers	1
Caulkers	1	Policemen and watchmen	5
Coachmen	1	Postoffice employees	1
Clergymen	2	Porters	2
Canmakers	1	Printers and engravers	1
Commercial trave'ers	1	Religieuse	1
Cooks	7	Restaurantkeepers	1
Coopers	2	Saloonkeepers	3
Drivers	8	Salesmen	5
Dressmakers and seamstresses	6	Seamen	1
Domestics	36	Steam railway employees	5
Electrical workers	1	Shipbuilders	1
Editors	1	Street railway employees	1
Engineers (civil)	1	Shoemakers	1
Engineers (stationary engine)	1	Stonecutters	2
Foremen	3	Servants	3
Factory hands	1	Stevedores	6
Farmers	2	School children	12
Firemen (Fire Department)	2	Tailors or tailoresses	5
Gaugers	1	Teamsters	1
Gilders	1	Teachers	2
Housewives	71	Tinners	1
Hodcarriers	1	Waiters	1
Hucksters	2	Waitresses	1
Inspectors	1	No occupation	317
Ironworkers	1		

Social Condition.

Unknown	5	Widows	87
Divorced	3	Widowers	36
Single	337		
Married	216	Total	684

BRONCHO-PNEUMONIA.

TABLE NO. 1—*Total Death Rate and Death Rates for White and Colored Population, Based on Census of* 1910, *from* 1903 *to* 1911, *Inclusive.*

YEAR.	*Estimated Population.	Total Deaths.	Death Rate per 1,000 of Population.	White. No. of Deaths.	White. Death Rate per 1,000.	Colored. No. of Deaths.	Colored. Death Rate per 1,000.
1903	524,417	335	0.639	219	0.494	116	1.425
1904	529,533	289	0.546	173	0.387	116	1.415
1905	534,449	350	0.655	237	0.524	113	1.370
1906	539,465	414	0.769	271	0.594	143	1.722
1907	544,481	371	0.681	237	0.514	134	1.603
1908	549,497	313	0.570	187	0.492	126	1.498
1909	554,513	370	0.667	220	0.468	150	1.772
1910	559 529	346	0.618	245	0.516	101	1.185
1911	564,545	407	0.721	270	0.504	137	1.593

*Corrected to July 1 of each year, according to census of 1910.

TABLE No. 2—*Deaths Arranged by Sex, Color, Wards and Calendar Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	2				1	2							2	1			1					1	1			1				1								3				1			1				11	7		
Second	1			1										1		1														1								1				1							2	4		2
Third	1	1			1	3				2			4																																			7	8		
Fourth	1	1	1	1	1			2	2		1	1				1	1	1	2										2												1		1			1	1	8	3	7	5
Fifth	2				2	1			1	1	1	2	2	2	2		1		1	1				1				1			1																	8	4	4	6
Sixth	4		1		1	1	1		1	2			1								1								1								1								1	3		1	10	9	2	1
Seventh	1				1	2				3	2		4	1			1								1	1																					8	11	3	
Eighth		1			1		1			4						1	1									1																			1	1			3	6	4	
Ninth	1																				1																											1	2	1		1
Tenth		1	1			3					1			1				1			1						1			1																	2		1	3	9	2	1
Eleventh		1						1																		1							1																2	1	2
Twelfth					1				3					1			1	2							1					1						1											1	7	5		3
Thirteenth					1	1			1					2		1	1																															6	3		1
Fourteenth	1				1					1			2	1	1			1		1	1				1		2					1			1		1	1							1	1	6	6	3	5
Fifteenth	2					2	1		1	1				1			1		1			1		1					1						1												5	3	0	3
Sixteenth	1	1	1	1							1	1		1	1		1		1					1		1	1																			1	1	4	4	6
Seventeenth						1	1							1	1				2	1				1				1																			1	1	7	4
Eighteenth	2	1			1	1	1				1	3	3				3				1		1		1					1	1													1	3			1	1	1	4	5	13	6
Nineteenth	1			1				1	1	1	1			2								1																											4	4	2	2
Twentieth	1				1	3			1	1							1	1											1																			6	5		1
Twenty-first		1							2	1			2				2	1	1	1						1			1																			7	5	3	2
Twenty-second	1	2	1	1			1						2	1			1	1	1									1																			1	6	4	3	3
Twenty-third	1	1												1	2					1					1																							2	4	2	3
Twenty-fourth	2				2					2							1	1					2			1			1																			8	6		
Bay View	1	3	1		1	2	1		1	3	2	2	2	3	1	2	1		1		1	1			1		1		1			2	1		1		1		1		1	1	1			1			10	16	0	5
Sydenham																																																			
Total	26	14	6	6	16	22	6	4	14	23	12	9	21	17	13	8	13	10	10	5	4	7	3	7	3	7	2	2	7	6	2	4	5	2	4	1	6	5	2	5	8	10	8	2	12	12	6	9	135	135	75	62

TABLE No. 3—*Deaths According to Age, Sex, Color and Calendar Months, Year* 1911.

AGES.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 month	1		1	1	3	2							1		1	1		1			1									1													1		6	3	3	3
Between 1 and 3 months	5	2	1	1	2	1	1		1	1	1	1		1			3				2				1			1				1							2		3	1	1		17	10	4	2
Between 3 and 12 months	4		1	1	1	6	1	1	4	4	4	3	8	3	7	1	4	3	4	1		3		3		1	1		2	1		2		2			1	1			1	1	2	2	2	2	25	23	24	16
Between 1 and 2 years	3	2	1	1	5	2	1		3	4	3	1	5	3	3	2	3	1	4	1	1	2		1		2		1	1										2	2			4		2	4		4	27	23	18	11
Between 2 and 3 years	2	1		1			1	1	1	3	1		2	1		1			1			1			1	2			1		1				1	1	2			2	2				1		1	11	8	5	8
Between 3 and 4 years		1			1	1			1	1			2	1				1		1		1						1				1							1	1				1		1	6	7		4
Between 4 and 5 years	1				1		1		1	1	1		1																																		4	1	2	
Between 5 and 9 years	1	1	1						1		1			1		1				1		1																								1	3	2	2	4
Between 10 and 14 years																		1																	1										1	1	1	
Between 15 and 19 years														1																																			2	
Between 20 and 24 years																								1																							1		
Between 25 and 29 years																				1															1										1		2	1
Between 30 and 34 years																																			1										2			
Between 35 and 39 years										1				1																																1	2	1
Between 40 and 44 years								1		2	1																1								1	1									2	3	2	1
Between 45 and 49 years							1											2				1													1								1		1	3	2	
Between 50 and 54 years	1		1							1		1							1			1				1															1			1	5	3	1
Between 55 and 59 years						1		1								1																										1		2		2	1	1	2
Between 60 and 64 years	1	1				1				1				1																					1									1	5		
Between 65 and 69 years	1				1	2				1	1		1	1			1	1							1						1												1	5	8	1	1
Between 70 and 74 years	4	2				3			2					1	1						1				1	2					1	1			1		1		1	1	1			1	10	11	1	2
Between 75 and 79 years	1	3		1		1				2		1				1																			1								1	3	7		3
Between 80 and 84 years	1					2				1			1	1															1	1													3	5		
Between 85 and 89 years		1			2									2			2					1													1									5	5		1
Between 90 and 94 years															1																				1										1		1
Between 95 and 99 years														1																																1		
Total	26	14	6	6	16	22	6	4	14	23	12	9	21	17	14	8	13	10	10	5	4	7	3	7	3	7	2	2	7	6	2	4	5	2	4	1	6	5	2	5	8	10	8	2	12	12	6	9	135	135	75	92

BRONCHO-PNEUMONIA.

TABLE NO. 4—*Deaths According to Occupations and Social Condition, Year* 1911.

Bakers	1	Laborers	14
Brassworkers	1	Lawyers	1
Bookkeepers, clerks	2	Locksmiths	1
Carpenters	4	Moulders	1
Carriage and wagon builders	1	Merchants	1
Cooks	2	Midwives	1
Coopers	1	Painters	1
Drivers	1	Porters	2
Dressmakers and seamstresses	4	Steam railway employees	1
Domestics	9	Storekeepers	1
Housewives	22	School children	4
Hodcarriers	1	Tailors or Tailoresses	2
Ironworkers	1	Tinners	1
Janitors	1	No occupation	325

Social Condition.

Unknown	1	Widowers	14
Single	309		
Married	47	Total	407
Widows	36		

BRONCHITIS, ACUTE AND CHRONIC.

Showing Deaths According to Color, Sex, Wards and Calendar Months, Year 1911.

Wards.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	1												1																1																				3	1		
Second	1	1			1	1							1																1																				3	3		
Third		2								1			1												1				1				1							1								2	6		
Fourth										1			1				1																																1	2		
Fifth		2	1																		1					1																						2	2	1	1
Sixth		2							1		2										1																												3	3	2	
Seventh						1				1								2																														1	4		
Eighth	1	1			1									1																																		2	2		
Ninth		1		1		2								2				1																															6		1
Tenth	1																	1							1																								4			
Eleventh												1																																					1		2
Twelfth							1		1													1	1																									1	4		
Thirteenth		1							1								1								1																							2	2		
Fourteenth			1				1								1																				1														1	1
Fifteenth		3		1			1			1											1				1				1																			3	5		2
Sixteenth									1									1				1	1																									3	2		
Seventeenth		1	2	2		1	1											1	1	1			1																								2	3	4	7
Eighteenth						1				1	1							1				1							1																			1	4	2	2
Nineteenth	2				1	2																1																									3	3		
Twentieth	1																	1							1				1																		3	1	1	
Twenty-first										1			2	1	1																																4	2	2	3
Twenty-second	1					2		1					1		1																																	2	3	2	2
Twenty-third																		1													1																2	2	2
Twenty-fourth																	2					1																										3			
Bay View																																																1			
Fordham																																																			
Total	8	14	4	4	3	10	2	3	4	6	3	1	7	4	2	1	5	7	1	2	5	3	2	3	3	3			2	2	2	1			2		1	1	2	3			2	2	4	1	3	5	4	1	4	4	92	87	22	29

ALIMENTARY CANAL.

TABLE No. 1—*Showing Deaths by Ages, Color, Sex and Calendar Months, Year* 1911.

MONTHS.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
January	1	3	1	1		5		1	2			1		1										1			4	9	1	3	17
February	1	1	1		1	4			2		1			1													4	6	2		12
March	3				4	1			1	2	3																8	3	3		14
April					1	3			2	1			1			1					1						4	4	1	1	10
May			1		8	7		1	8	4	1	2	2											1			19	11	2	3	35
June		2		1	1	4		3	4	7			2	1		2		2									7	16		6	29
July	7	1	3	1	8	11	5	5	43	50	19	16	18	9	3	2	1										77	71	30	24	202
August	1	7	1		6	10	6	8	28	34	6	5	7	5	2	1	2	1									44	57	15	14	130
September	4	1	1	1	6	4		2	21	27	4		6	4		1	3										40	36	5	4	85
October					6	3		2	9	7	2	2	1	4	2	1							1				16	14	5	5	40
November						1	1		3	4			1	4													4	9	1		14
December	1			2			1		1	1	1			1													2	2	2	2	8
Totals	18	15	8	6	41	53	13	22	124	137	37	26	38	30	7	8	6	3	1				1		2		229	238	67	62	596

ALIMENTARY CANAL.

TABLE No. 2—*Showing Deaths by Wards, Sex, Age and Color, Year* 1911.

WARDS.	Under 1 Mo.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	1	1	....	....	1	3	....	....	12	16	1	....	4	3	....	....	1	....	....	....	....	....	....	....	1	....	....	....	20	23	1	....	44
Second	2	....	....	....	5	3	1	....	13	19	1	....	9	4	....	....	....	1	....	....	....	....	....	....	....	....	....	....	29	27	2	....	58
Third	1	1	....	1	1	1	....	....	8	11	....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	13	....	1	27
Fourth	....	....	....	1	1	1	1	2	2	4	2	5	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	3	5	3	10	21
Fifth	1	....	1	....	1	2	2	1	5	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7	3	6	1	17
Sixth	....	....	1	....	....	2	1	....	6	8	....	2	3	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	10	12	2	2	26
Seventh	1	1	....	....	3	1	1	1	5	5	3	1	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	11	9	4	2	26
Eighth	1	....	....	....	....	2	....	....	7	6	....	1	2	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	10	10	....	1	21
Ninth	....	....	1	....	2	....	....	....	4	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	3	2	....	11
Tenth	2	....	....	....	1	1	....	....	3	8	1	1	2	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	9	11	1	1	22
Eleventh	....	....	....	....	....	....	....	3	....	1	2	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	5	9
Twelfth	....	2	....	....	2	....	....	1	2	2	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	4	....	2	11
Thirteenth	....	....	....	....	1	1	....	....	2	3	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	4	....	....	9
Fourteenth	8	9	1	1	13	22	1	....	8	9	6	....	2	2	....	1	1	....	....	....	....	....	....	....	....	....	....	....	32	42	8	2	84
Fifteenth	....	....	2	....	....	2	1	2	1	2	3	4	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	2	4	7	6	19
Sixteenth	....	....	1	1	1	....	1	1	1	2	1	3	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	4	5	13
Seventeenth	....	....	....	....	1	....	1	4	2	....	5	3	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	3	....	7	9	19
Eighteenth	....	....	....	1	3	....	....	2	4	2	1	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	7	2	2	5	16
Nineteenth	....	....	....	....	1	2	....	1	1	3	3	....	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	8	3	1	15
Twentieth	....	....	....	....	....	1	1	....	4	4	....	....	2	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	7	1	....	14
Twenty-first	1	1	....	....	1	2	1	2	8	6	....	....	....	4	....	1	1	....	....	....	....	....	1	....	....	....	....	....	11	13	2	3	29
Twenty-second	....	....	1	1	....	....	....	2	8	3	1	....	1	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	9	4	2	4	19
Twenty-third	....	....	....	....	....	2	1	....	3	5	3	2	1	1	2	....	....	1	1	....	....	....	....	....	....	....	....	....	4	9	7	2	22
Twenty-fourth	....	....	....	....	3	5	....	....	15	14	....	....	3	3	....	....	....	....	....	....	....	....	....	....	....	....	1	....	22	22	....	....	44
Totals	18	15	8	6	41	53	13	22	124	137	37	26	38	30	7	8	6	3	1	....	....	....	1	....	2	....	....	....	229	238	67	62	596

GASTRO ENTERITIS.

TABLE NO. 2-A—*Showing Deaths by Age, Color, Sex and Months, Year* 1911.

MONTH.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	1	3	....	1	....	5	....	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	8	....	3
February	1	1	1	....	....	4	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	5	1	1
March	2	....	....	....	3	1	....	....	....	2	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	3	2	....
April	....	....	....	....	1	3	....	....	1	1	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	2	4	1	1
May	....	....	1	....	6	7	....	1	1	2	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7	9	1	2
June	....	1	....	2	1	1	....	....	2	3	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	4	6	....	2
July	5	....	2	....	3	5	....	3	10	14	8	6	5	3	2	....	....	....	....	....	....	....	....	....	....	....	....	....	23	22	12	9
August	....	4	1	....	1	3	2	2	7	9	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	8	17	5	2
September	3	1	....	1	2	1	....	1	7	7	....	....	2	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	16	9	....	3
October	....	....	....	....	3	1	....	....	5	2	....	1	....	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	8	6	1	1
November	....	....	....	....	....	....	....	....	1	2	....	....	....	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	6	....	....
December	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....
Totals	12	10	5	4	20	31	2	8	38	43	11	9	8	11	4	2	2	1	1	....	....	....	....	....	....	....	....	....	80	96	23	23

GASTRO ENTERITIS.

TABLE No. 2-B—*Showing Deaths by Wards, Age, Sex and Color, Year* 1911.

WARDS.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Totals.				Grand Totals.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First		1			1	2			6	4			2	1			1												10	8			18
Second	2				1	3			1	3			2	1															6	7			13
Third	1								2	6																			3	6			9
Fourth				1					3	1	1	2				1													3	1	1	4	9
Fifth			1		1				1	1	1																		2	1	2		5
Sixth						1			2					2															2	3			5
Seventh						1				2																				3			3
Eighth									2					1															2	1			3
Ninth					1				1	2																			2	2			4
Tenth	1								3																				4				4
Eleventh								1			1	2			1																2	3	5
Twelfth									1																				1				1
Thirteenth									1	1			1																2	1			3
Fourteenth	8	9	1	1	12	21	1		6	7	2		1	1															27	38	4	1	70
Fifteenth			1			1		2	1	1		2			1														1	2	2	4	9
Sixteenth			1									1																			1	1	2
Seventeenth					1			1			4	1			1	1													1		5	3	9
Eighteenth				1	1			2	1	1					1														2	1	1	3	7
Nineteenth											1																				1		1
Twentieth						1			1	2			1	1															2	4			6
Twenty-first									3	3				4			1												4	7			11
Twenty-second			1	1				2		1																				1	1	3	5
Twenty-third							1		1	4	1	1						1	1										1	5	3	1	10
Twenty-fourth					2	1			2	4			1																5	5			10
Totals	12	10	5	4	20	31	2	8	38	43	11	9	8	11	4	2	2	1	1										80	96	23	23	222

COLITIS AND SUMMER COMPLAINT.

TABLE No. 2-C—*Showing Deaths by Months, Age, Color and Sex, Year, 1911.*

MONTH.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
February	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
March	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
April	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
May	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
June	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
July	....	....	....	....	....	1	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	1
August	....	....	....	....	1	....	....	....	2	1	....	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	3	1	1	2
September	....	....	....	....	....	....	....	....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....
October	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
November	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
December	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....
Totals	....	....	....	....	1	1	1	....	3	5	1	3	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	4	6	3	3

COLITIS AND SUMMER COMPLAINT.

TABLE No. 2-D—*Showing Deaths by Wards, Age, Sex and Color, Year* 1911.

WARDS.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First																																	
Second									1	1																			1	1			2
Third																																	
Fourth										1																				1			1
Fifth																																	
Sixth																																	
Seventh																																	
Eighth												1																				1	1
Ninth																																	
Tenth																																	
Eleventh																																	
Twelfth																																	
Thirteenth																																	
Fourteenth											1																				1		1
Fifteenth																																	
Sixteenth												1																				1	1
Seventeenth												1																				1	1
Eighteenth																																	
Nineteenth					1																								1				1
Twentieth																																	
Twenty-first						1	1																							1	1		2
Twenty-second									1	1																			1	1			2
Twenty-third															1																1		1
Twenty-fourth									1	2																			1	2			3
Totals					1	1	1		3	5	1	3			1														4	6	3	3	16

DIARRHOEA.

TABLE NO. 2-E—*Showing Deaths by Months, Age, Color and Sex, Year* 1911.

MONTH.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
February	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
March	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
April	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
May	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
June	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
July	1	....	....	....	1	3	....	1	2	6	2	3	4	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	10	2	4
August	....	1	....	....	2	....	1	....	3	4	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	5	1	....
September	....	....	....	....	....	....	....	1	3	2	1	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	4	1	1
October	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....
November	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
December	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	1	1	....	....	3	5	1	2	9	12	4	3	6	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	19	21	5	5

TABLE No. 2-F—*Showing Deaths by Wards, Age, Sex and Color, Year* 1911.

WARDS.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First						1				1																				2			2
Second					1	1				2			1	1															2	4			6
Third					1				1	1			2																4	1			5
Fourth																																	
Fifth									1		1																		1		1		2
Sixth						1				2		1	2																2	3		1	6
Seventh									1																				1				1
Eighth									1	1			1																2	1			3
Ninth																																	
Tenth										1																				1			1
Eleventh																																	
Twelfth												1																				1	1
Thirteenth																																	
Fourteenth																																	
Fifteenth											2	1																			2	1	3
Sixteenth							1	1																							1	1	2
Seventeenth																																	
Eighteenth										1																				1			1
Nineteenth											1			1																1	1		2
Twentieth									1																				1				1
Twenty-first	1	1			1			1		1																			2	2		1	5
Twenty-second									1																				1				1
Twenty-third																																	
Twenty-fourth						2			3	2				1															3	5			8
Total	1	1			3	5	1	2	9	12	4	3	6	3															19	21	5	5	50

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TABLE NO. 2-G—*Showing Deaths by Months, Age, Color and Sex, Year* 1911.

MONTH.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
February	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
March	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
April	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
May	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....
June	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
July	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
August	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
September	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
October	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1
November	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
December	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	2
Totals	1	....	....	2	1	1	....	3	....	1	1	1	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	3	2	2	7

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TABLE No. 2-H—*Showing Deaths by Wards, Age, Sex and Color, Year* 1911.

WARDS.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First																																	
Second					1																								1				1
Third				1																												1	1
Fourth												1																				1	1
Fifth	1							1																					1			1	2
Sixth																																	
Seventh																																	
Eighth																																	
Ninth																																	
Tenth																																	
Eleventh																																	
Twelfth								1																								1	1
Thirteenth										1																				1			1
Fourteenth											1																					1	1
Fifteenth																																	
Sixteenth				1																												1	1
Seventeenth																																	
Eighteenth																																	
Nineteenth								1																								1	1
Twentieth																																	
Twenty-first																1																1	1
Twenty-second													1																	1			1	1
Twenty-third						1										1														1	1		2
Twenty-fourth																																	
Totals	1			2	1	1		3		1	1	1	1		1	1													3	2	2	7	14

ENTERITIS.

TABLE No. 2-I—*Showing Deaths by Months, Age, Color and Sex, Year* 1911.

MONTH.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....
February	....	....	....	....	....	....	....	....	1	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	....
March	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
April	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
May	....	....	....	....	2	....	....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	6	....	....	....
June	....	1	....	....	....	1	....	2	....	2	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	5	....	2
July	....	1	....	....	....	....	1	2	6	11	3	1	3	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	15	4	3
August	....	2	....	....	....	2	....	....	2	3	....	2	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	5	7	....	2
September	....	....	1	....	1	2	....	....	4	4	2	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7	7	3	....
October	....	....	....	....	1	1	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	2	3	1	....
November	....	....	....	....	....	....	1	....	1	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	1	....
December	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....
Totals	....	4	1	....	4	6	2	4	19	23	7	3	8	5	....	....	1	1	....	....	....	....	1	....	2	....	....	....	34	39	11	7

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TABLE No. 2-J—*Showing Deaths by Wards, Age, Sex and Color, Year* 1911.

WARDS.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First									3	4			2	1											1				6	5			11
Second					1		1		2	5			3																6	5	1		12
Third		1							1	1																			1	2			3
Fourth								2			1	1																			1	3	4
Fifth						2	1		2																				2	2	1		5
Sixth			1							1							1												1	1	1		3
Seventh		1						1		1	2																			2	2	1	5
Eighth						1			1	1								1											1	3			4
Ninth																																	
Tenth										2	1			1																3	1		4
Eleventh								1			1																				1	1	2
Twelfth		2							1	2																			1	4			5
Thirteenth																																	
Fourteenth						1				1	1			1																3	1		4
Fifteenth												1																				1	1
Sixteenth																																	
Seventeenth												1																				1	1
Eighteenth					2				1																				3				3
Nineteenth						1				1			1	1															1	3			4
Twentieth									2				1																3				3
Twenty-first										1														1						1	1		2
Twenty-second									3																				3				3
Twenty-third										1	1		1	1															1	2	1		4
Twenty-fourth					1	1			3	2																			5	3			8
Totals		4	1		4	6	2	4	19	23	7	3	8	5			1	1					1		2				34	39	11	7	91

CHOLERA INFANTUM.

TABLE No. 2-K—*Showing Deaths by Months, Age, Color and Sex, Year* 1911.

MONTH.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Totals.			
	White.		Colored.		White.		Colored		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....
February	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
March	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
April	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
May	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
June	....	....	....	....	....	1	....	....	1	....	....	....	....	1	....	2	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	2
July	....	....	1	....	3	2	2	....	16	12	5	3	5	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	24	16	8	3
August	....	....	....	....	2	3	3	1	6	10	2	1	2	3	....	1	....	....	....	....	....	....	....	....	....	....	....	....	10	16	5	3
September	....	....	....	....	2	....	....	....	2	6	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	7	....	....
October	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2
November	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
December	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	....	....	2	....	7	6	5	1	26	28	8	6	8	7	....	4	....	....	....	....	....	....	....	....	....	....	....	....	41	41	15	11

TABLE No. 2-L—*Showing Deaths by Wards, Age, Sex and Color, Year 1911.*

WARDS.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First									2	2																			2	2			4
Second					1				4	8			1	1															6	9			15
Third									1	1			1																2	1			3
Fourth					1		1			1						1													1	1	1	1	4
Fifth							1		1		1																		1		2		3
Sixth							1		1	3		1																	1	3	1	1	6
Seventh					1				1			1	1	2															3	2		1	6
Eighth									1	1																			1	1			2
Ninth			1							1	1																			1	2		3
Tenth						1				2		1																		3		1	4
Eleventh										1																				1			1
Twelfth					2								1																3				3
Thirteenth									1																				1				1
Fourteenth					1								1			1													2			1	3
Fifteenth			1			1	1			1	1		1																1	2	3		6
Sixteenth					1				1	1	1	1																	2	1	1	1	5
Seventeenth							1	1			1																				2	1	3
Eighteenth											1	1				1															1	2	3
Nineteenth						1			1	1	1																		1	2	1		4
Twentieth										1				1																2			2
Twenty-first						1			3	1																			3	2			5
Twenty-second									3					1		1													3	1		1	5
Twenty-third						2			2		1	1																	2	2	1	1	6
Twenty-fourth									4	3			2	2															6	5			11
Total			2		7	6	5	1	26	28	8	6	8	7		4													41	41	15	11	108

ENTERO COLITIS.

TABLE No. 2-M—*Showing Deaths by Months, Age, Color and Sex, Year* 1911.

MONTH.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Years.				Bet. 2 and 3 Years.				Bet. 3 and 4 Years.				Bet. 4 and 5 Years.				Totals.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January														1																1		
February																																
March	1				1						1																		2		1	
April									1				1																2			
May									2	2			1																3	2		
June									1	1			1																2	1		
July	1				1		2		8	7		1	1		1	1	1												12	7	3	2
August	1					2		3	8	7	3		2	1			1	1											12	11	3	3
September	1				1	1			5	4	1						1												8	5	1	
October					2			1	3	3			1	1															6	4		1
November									1	1																			1	1		
December														1																1		
Totals	4				5	3	2	4	29	25	5	1	7	4	1	1	3	1											48	33	8	6

ENTERO COLITIS.

TABLE No. 2-N—*Showing Deaths by Wards, Age, Sex and Color, Year* 1911.

WARDS.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	1								1	5	1			1															2	6	1		9
Second									5	1	1		2	1				1											7	3	1		11
Third									2	1																			2	1			3
Fourth						1				1		1																		2		1	3
Fifth				1																													
Sixth									3	1			1																4	1			5
Seventh	1				2		1		3	3	1						1												7	3	2		12
Eighth	1					1			2	3			1																4	4			8
Ninth					1				3																				4				4
Tenth	1				1					2			2	1			1												5	3			8
Eleventh								1		1																				1		1	2
Twelfth																																	
Thirteenth					1	1				1			1																2	2			4
Fourteenth									2	1	1						1												3	1	1		5
Fifteenth																																	
Sixteenth										1					1															1	1		2
Seventeenth								2	2							1													2			3	5
Eighteenth									2																				2				2
Nineteenth										1				1																2			2
Twentieth							1			1																				1	1		2
Twenty-first								1	2																				2			1	3
Twenty-second										1																				1			1
Twenty-third											1																				1		1
Twenty-fourth									2	1																			2	1			3
Total	4				5	3	2	4	29	25	5	1	7	4	1	1	3	1											48	33	8	6	95

Deaths Due to Inanition in Year 1907, According to Age, Sex, Color and Calendar Months.

Months.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	....	2	2	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	3	1
February	....	2	....	3	....	....	....	1	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	2	2	....	4
March	2	2	1	....	1	....	1	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	3	1
April	....	1	....	....	1	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	1	....
May	2	2	....	1	....	1	1	....	1	....	2	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	3	3	1
June	....	....	....	1	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	1
July	9	8	....	1	4	8	1	....	3	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	16	16	2	2
August	11	5	....	....	6	4	....	2	2	1	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	19	11	2	2
September	5	5	1	....	5	5	2	2	2	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	12	12	5	2
October	2	2	....	....	1	....	2	1	....	1	1	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	3	3	3	3
November	3	2	....	....	5	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	2	1	....
December	1	3	....	1	....	3	1	1	1	1	....	3	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	2	7	2	5
Total	35	34	4	7	25	21	10	9	9	6	9	4	3	2	1	2	1	....	1	....	....	....	....	....	....	....	....	....	73	63	25	22

Deaths Due to Inanition in Year 1907, According to Age, Sex, Color and City Wards.

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	1	3	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	4	....	....	5
Second	2	2	....	....	1	....	....	....	....	1	....	....	1	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	5	4	....	....	9
Third	2	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	....	....	4
Fourth	1	1	....	1	....	....	3	2	....	....	1	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	1	4	6	12
Fifth	2	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	1	1	4
Sixth	2	....	....	1	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	1	....	1	6
Seventh	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	2
Eighth	1	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	....	3
Ninth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tenth	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1
Eleventh	....	1	1	1	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	1	5
Twelfth	....	....	....	1	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	1	3
Thirteenth	2	1	....	....	2	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	2	....	....	7
Fourteenth	14	18	....	....	11	16	....	1	2	1	2	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	27	35	2	3	67
Fifteenth	....	....	....	....	....	....	....	1	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	1	3
Sixteenth	....	....	....	....	....	....	1	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	2	....	3
Seventeenth	....	....	1	2	....	....	3	2	1	....	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	7	5	13
Eighteenth	3	1	....	....	5	2	1	1	2	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	11	3	2	1	17
Nineteenth	2	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	3
Twentieth	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	....	....	4
Twenty-first	....	2	....	....	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	....	1	5
Twenty-second	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2
Twenty-third	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	2	....	3
Twenty-fourth	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	2
Total	35	34	4	7	25	21	10	9	9	6	9	4	3	2	....	2	1	....	1	....	....	....	....	....	....	....	....	....	73	63	25	22	183

Deaths Due to Inanition in Year 1908, According to Age, Sex, Color and Calendar Months.

Months.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	8	7	3	1	....	2	1	....	3	....	1	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	11	9	6	2
February	1	....	2	2	1	2	1	2	....	2	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	2	4	4	4
March	2	2	1	....	1	1	3	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3	6	....
April	1	....	2	3	2	1	....	2	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	2	5
May	7	4	1	....	7	2	....	3	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	15	7	1	3
June	....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
July	2	2	1	....	3	2	3	1	1	3	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	7	5	2
August	....	....	1	1	....	....	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	1
September	6	1	....	2	1	1	3	1	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	2	3	4
October	....	....	....	....	1	1	2	1	....	....	1	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	3	3
November	....	....	....	1	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2
December	1	2	1	1	2	....	....	1	....	....	1	2	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	3	3	3	4
Total	28	18	12	11	19	12	14	11	5	8	8	9	2	1	3	....	....	....	....	....	....	....	....	....	....	....	....	54	39	37	31

Deaths Due to Inanition in Year 1908, According to Age, Sex, Color and City Wards.

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	1	3	1	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	4	1	....	7
Second	3	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	1	....	....	5
Third	1	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	....	....	4
Fourth	1	....	4	6	1	....	2	2	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	7	9	18
Fifth	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Sixth	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1
Seventh	1	1	1	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	1	1	....	5
Eighth	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....	3
Ninth	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	2
Tenth	1	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	1	....	3
Eleventh	....	1	2	....	....	....	2	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	4	2	7
Twelfth	....	1	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	3
Thirteenth	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	2
Fourteenth	10	7	....	2	5	3	3	....	2	1	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	17	11	6	3	37
Fifteenth	....	....	....	....	....	1	3	....	....	1	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	5	2	9
Sixteenth	1	....	....	....	....	1	....	....	....	....	1	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	1	2	6
Seventeenth	....	1	1	1	....	1	1	2	1	....	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	5	3	11
Eighteenth	1	1	....	....	5	1	....	1	1	3	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	7	6	1	1	15
Nineteenth	....	....	....	1	....	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	4
Twentieth	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	2
Twenty-first	....	....	....	....	....	1	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2	4
Twenty-second	1	....	1	1	....	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	3	2	6
Twenty-third	....	....	....	....	1	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	....	3
Twenty-fourth	2	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....	3
Total	28	18	12	11	19	12	14	11	5	8	8	9	2	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	54	39	37	31	161

Deaths Due to Inanition in Year 1909, According to Age, Sex, Color and Calendar Months.

Months.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	1	2	....	2	1	....	3	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	3	4
February	3	....	....	1	5	2	3	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	2	3	4
March	3	6	....	....	4	2	3	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	8	3	3
April	3	3	1	1	7	8	....	....	1	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	11	13	1	1
May	3	5	2	....	4	11	1	....	2	2	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	18	4	1
June	8	2	1	1	4	6	2	2	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	12	9	5	3
July	6	2	1	5	4	5	3	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	10	8	4	5
August	3	4	....	....	10	4	1	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	14	8	2	....
September	1	1	....	....	1	1	2	1	1	....	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	3	4
October	....	....	....	....	....	....	1	1	....	....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	4
November	3	....	....	1	2	....	2	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	....	2	1
December	1	2	1	....	1	1	....	....	1	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3	3	1
Total	35	27	6	11	43	40	21	11	8	4	7	9	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	87	73	34	31

Deaths Due to Inanition in Year 1909, According to Age, Sex, Color and City Wards.

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	....	3
Second	2	2	....	....	2	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	4	....	....	9
Third	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	2
Fourth	2	2	3	3	....	2	9	7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	4	12	10	28
Fifth	....	....	....	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	3
Sixth	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	2
Seventh	1	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	....	3
Eighth	2	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	1	....	....	4
Ninth	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	2
Tenth	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Eleventh	1	1	....	1	....	....	....	....	....	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2	2	6
Twelfth	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Thirteenth	1	1	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	1	4
Fourteenth	19	13	1	1	33	34	....	1	3	3	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	55	50	3	3	111
Fifteenth	....	....	....	....	1	....	4	2	....	....	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	7	3	11
Sixteenth	....	1	....	....	....	1	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	2	4
Seventeenth	....	....	2	....	....	....	2	....	....	....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	3	7
Eighteenth	....	....	....	3	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	3	5
Nineteenth	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1
Twentieth	1	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	1	....	....	4
Twenty-first	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	....	3
Twenty-second	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	2
Twenty-third	1	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	2	....	3
Twenty-fourth	....	....	....	1	2	1	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	....	1	6
Total	35	27	6	11	43	40	21	11	8	4	7	9	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	87	73	34	31	225

Deaths Due to Inanition in Year 1910, *According to Age, Sex, Color and Calendar Months.*

Months.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	....	2	4	2	1	....	4	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	3	8	2
February	2	2	....	1	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	3	....	2
March	1	1	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	1
April	1	2	....	1	....	....	....	2	....	....	2	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	1	2	2	5
May	2	1	2	1	1	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	3	1
June	2	1	3	1	....	....	....	....	....	1	1	1	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	4	2	4	2
July	3	2	....	1	....	....	1	....	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	2	1	3
August	1	2	1	1	..	1	....	2	3	2	2	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	5	3	4
September	2	1	....	....	....	....	....	1	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	3	....	1
October	2	2	1	2	....	....	3	1	....	1	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	3	4	5
November	1	....	1	....	2	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	1	....
December	3	3	1	....	1	1	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	5	2	1
Total	20	19	13	11	5	4	10	8	5	8	6	6	3	2	....	2	1	....	....	....	....	....	....	....	....	....	....	....	34	33	29	27

*Deaths Due to Inanition in Year 1910, According to Age, **Sex**, Color and City **Wards**.*

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	1	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	....	3
Second	4	4	....	....	1	....	....	1	2	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	5	....	1	14
Third	2	1	....	2	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	....	2	6
Fourth	2	1	1	3	....	2	2	3	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	4	3	6	15
Fifth	....	....	1	....	....	....	1	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	3	....	4
Sixth	2	....	....	....	1	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	4	....	....	1	5
Seventh	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	2
Eighth	3	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	....	....	5
Ninth	1	1	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	1	....	4
Tenth	1	1	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	....	....	4
Eleventh	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2
Twelfth	....	....	1	2	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	2	4
Thirteenth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fourteenth	....	....	1	1	....	....	....	....	....	....	1	2	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	2	....	2	3	7
Fifteenth	1	2	2	....	....	....	....	1	....	1	2	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	4	3	11
Sixteenth	....	....	1	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	3
Seventeenth	....	....	3	1	....	....	3	2	....	1	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	6	5	12
Eighteenth	1	2	....	1	1	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	3	1	1	7
Nineteenth	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	2
Twentieth	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	2
Twenty-first	....	1	1	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	1	....	4
Twenty-second	....	....	....	1	....	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2	4
Twenty-third	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	2
Twenty-fourth	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Total	20	19	13	11	5	4	10	8	5	8	6	6	3	2	....	2	1	....	....	....	....	....	....	....	....	....	....	....	34	33	29	27	123

Deaths Due to Inanition in Year 1911, *According to Age, Sex, Color and Calendar Months.*

Months.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	1	1	....	....	....	....	1	2	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2	3
February	2	3	1	2	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3	1	2
March	4	....	4	1	....	1	....	2	1	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	5	1	5	4
April	1	4	1	2	....	....	1	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	2	4	2	3
May	1	2	1	2	1	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	3	1	3
June	3	2	1	1	1	....	3	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	2	6	2
July	1	....	1	....	....	....	....	....	....	1	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	3	1
August	4	....	....	1	....	....	1	1	3	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7	....	1	3
September	4	3	....	....	2	....	....	1	....	2	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	6	....	2
October	1	1	....	....	1	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	1	....
November	....	....	1	2	1	1	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	4
December	2	1	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	1	....	1
Total	24	17	10	11	7	2	7	9	4	5	5	7	1	1	1	....	1	....	....	1	....	....	....	....	....	....	....	....	37	25	23	28

Deaths Due to Inanition in Year 1911, According to Age, Sex, Color and City Wards.

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	3	5	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	6	....	....	10
Second	2	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....	3
Third	1	....	2	1	1	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	3	1	7
Fourth	1	....	3	4	1	....	2	6	....	1	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	6	13	22
Fifth	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	2
Sixth	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	....	3
Seventh	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1
Eighth	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	3
Ninth	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1
Tenth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Eleventh	1	....	....	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	4	5
Twelfth	2	1	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	....	....	5
Thirteenth	2	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	1	4
Fourteenth	8	3	....	....	1	2	....	....	1	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	11	5	....	1	17
Fifteenth	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	2
Sixteenth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Seventeenth	....	....	2	1	....	....	1	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	3	7
Eighteenth	1	2	....	2	1	....	1	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	1	4	9
Nineteenth	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	2
Twentieth	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	2
Twenty-first	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Twenty-second	....	....	....	....	....	....	2	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	1	4
Twenty-third	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Twenty-fourth	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Total	24	17	10	11	7	2	7	9	4	5	5	7	1	1	1	....	1	....	....	1	....	....	....	....	....	....	....	....	37	25	23	28	113

Deaths Due to Marasmus in Year 1907, According to Age, Sex, Color and Calendar Months.

Months.	Under 1 Month.				Bet. 1 and 3 Mos				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	10	4	....	....	5	7	1	....	1	3	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	17	14	2	....
February	3	6	3	....	8	3	1	1	1	....	3	2	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	12	9	8	3
March	....	2	1	....	2	4	3	2	2	1	1	4	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	4	7	5	8
April	5	3	1	....	4	6	3	....	2	2	1	....	1	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	12	11	6	1
May	1	2	1	....	7	6	2	2	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	8	4	2
June	8	4	....	....	9	4	2	2	5	4	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	22	12	4	3
July	3	1	....	....	1	5	5	4	7	6	3	5	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	11	12	8	10
August	4	4	3	1	4	4	3	....	8	5	1	4	3	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	19	14	8	5
September	1	....	3	1	4	2	....	....	5	9	2	2	2	2	....	1	....	....	....	....	....	....	....	....	....	....	....	....	12	13	5	4
October	3	2	1	1	5	8	3	....	8	3	1	2	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	18	14	5	3
November	....	....	....	1	2	2	....	2	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	....	4
December	....	5	....	....	8	5	....	2	1	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	9	10	2	2
Total	38	33	13	4	59	56	23	15	42	33	17	21	9	4	3	3	....	....	1	2	....	....	....	....	....	....	....	....	148	126	57	45

Deaths Due to Marasmus in Year 1907, According to Age, Sex, Color and City Wards.

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	....	....	....	....	....	....	....	1	4	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	2	....	1	7
Second	2	....	1	....	1	1	1	....	1	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	2	2	....	9
Third	....	....	....	....	....	1	....	1	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	4	....	1	6
Fourth	1	....	11	3	....	1	12	12	1	....	5	9	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	2	1	29	25	57
Fifth	2	....	....	....	4	1	....	....	....	2	2	3	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	6	3	2	5	16
Sixth	....	1	....	....	1	....	....	1	3	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	1	1	2	8
Seventh	....	....	....	....	4	1	2	....	2	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	2	3	1	12
Eighth	1	1	....	....	2	2	....	....	2	1	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	5	....	1	11
Ninth	....	....	....	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	3
Tenth	....	....	....	....	....	....	....	....	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	....	....	4
Eleventh	1	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....	3
Twelfth	....	....	....	....	....	....	2	....	1	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	5	....	6
Thirteenth	....	....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	2
Fourteenth	29	28	1	....	39	37	1	....	12	9	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	81	74	3	1	159
Fifteenth	....	....	....	1	....	....	2	....	1	2	....	1	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	2	2	3	2	9
Sixteenth	....	....	....	....	....	....	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	1	3
Seventeenth	....	....	....	....	....	....	....	....	....	....	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	4
Eighteenth	1	1	....	....	1	1	....	....	3	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	4	....	....	10
Nineteenth	1	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	2	1	....	1	4
Twentieth	....	1	....	....	....	3	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	4	....	....	5
Twenty-first	....	....	....	....	2	1	....	....	2	3	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	5	....	....	10
Twenty-second	....	1	....	....	1	1	1	....	....	1	3	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	5	1	10
Twenty-third	....	....	....	....	1	2	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	3	....	....	5
Twenty-fourth	....	....	....	....	2	2	....	....	3	3	....	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7	6	....	....	13
Total	38	33	13	4	59	56	23	15	42	33	17	21	9	4	3	3	....	....	1	2	....	....	....	....	....	....	....	....	148	126	57	45	376

Deaths Due to Marasmus in Year 1908, According to Age, Sex, Color and Calendar Months.

Months.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	3	1	....	....	5	3	1	....	2	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	10	6	1	....
February	2	3	1	....	8	8	2	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	11	11	3	3
March	....	....	....	....	1	1	....	4	1	....	2	1	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	2	2	2	6
April	1	1	....	....	1	....	....	....	1	3	....	2	....	....	1	1	....	1	....	....	....	....	....	....	....	....	....	....	3	5	1	3
May	....	....	....	....	....	....	2	2	2	1	2	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	2	1	5	3
June	1	....	....	....	2	1	3	3	2	2	5	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	3	8	8
July	2	2	....	....	5	4	3	2	6	6	3	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	12	6	6
August	8	10	....	2	10	5	....	....	5	5	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	23	20	2	4
September	3	3	....	1	10	3	1	....	6	6	2	4	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	22	12	3	5
October	9	1	....	1	9	9	3	2	3	6	1	2	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	21	17	4	6
November	1	....	....	....	5	4	1	....	4	2	....	2	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	10	8	1	2
December	....	1	....	....	5	2	1	....	4	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	3	2	1
Total	30	22	1	4	61	40	17	16	37	33	17	23	3	4	2	1	....	1	1	3	....	....	....	....	....	....	....	....	131	100	38	47

Deaths Due to Marasmus in Year 1908, According to Age, Sex, Color and City Wards.

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First						1			1	2																			1	3			4
Second					2								1																3				3
Third	2	1				2			4	2	1		1																7	5	1		13
Fourth			1	2	1		7	12	2		6	8				1													3		15	22	40
Fifth	1				1	3	2		1	1		2																	3	4	2	2	11
Sixth					2			1		1		2																	2	1		3	6
Seventh					1																								1				1
Eighth				1	2				1	4																			3	4		1	8
Ninth		1								1	1																			2	1		3
Tenth					4				3																				7				7
Eleventh																																	
Twelfth		1			2		1		1		1	2																	3	1	2	2	8
Thirteenth					2				4																				6				6
Fourteenth	24	18		1	35	25			6	10	1	2										1							65	53	1	4	123
Fifteenth					1	2					1																		1	2	1		4
Sixteenth							1		1			2						1											1		1	3	5
Seventeenth							3				1	3																			4	3	7
Eighteenth					2	5	1	1	6	3				1															8	9	1	1	19
Nineteenth	2				2		1		1	1		1																	5	1	1	1	8
Twentieth						1				2																				3			3
Twenty-first							2		3	1	1			1															3	2	1	2	8
Twenty-second						1	1				3		1	1	1				1	1									1	2	6	1	10
Twenty-third		1							1	2	1	1								1									1	3	1	2	7
Twenty-fourth	1				4				2	3				1				1											7	5			12
Total	30	22	1	4	61	40	17	16	37	33	17	23	3	4	2	1		1	1	3									131	100	38	47	316

Deaths Due to Marasmus in Year 1909, According to Age, Sex, Color and Calendar Months.

Months.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	3	2	....	1	8	11	1	....	2	2	2	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	13	15	3	4
February	1	....	....	....	4	2	2	1	4	3	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	9	5	2	2
March	1	....	....	1	....	1	....	1	2	2	5	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3	5	4
April	....	1	....	....	1	1	3	....	1	4	....	2	1	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	3	7	3	3
May	....	....	1	....	3	2	1	....	6	1	2	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	9	3	4	2
June	....	....	....	....	....	3	....	1	3	2	4	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	5	4	2
July	1	2	....	....	4	3	....	1	5	3	3	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	10	8	3	4
August	3	3	....	....	4	1	1	1	3	4	1	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	12	8	2	2
September	1	....	....	1	3	7	1	2	12	4	3	1	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	17	11	5	4
October	2	....	1	....	....	3	3	1	5	11	2	2	....	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	7	17	7	3
November	....	1	....	1	4	....	....	3	....	2	1	1	....	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	5	5	1	5
December	....	....	....	....	3	1	2	2	5	4	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	5	3	2
Total	12	9	2	4	34	35	14	13	48	42	24	16	5	6	2	2	1	....	....	2	....	....	....	....	....	....	....	....	100	92	42	37

Deaths Due to Marasmus in Year 1909, According to Age, Sex, Color and City Wards.

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First	....	....	....	....	1	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	....	3
Second	....	....	....	....	....	....	....	....	1	2	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	....	....	5
Third	1	....	....	....	....	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	....	....	4
Fourth	....	....	2	3	1	1	7	8	1	1	12	7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	21	18	43
Fifth	....	....	....	....	....	1	....	....	1	4	2	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	5	2	1	10
Sixth	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	2
Seventh	1	....	....	....	1	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	1	....	4
Eighth	....	2	....	....	2	....	....	....	3	3	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	5	....	1	11
Ninth	1	....	....	1	....	....	....	....	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	....	....	....	6
Tenth	1	1	....	....	3	2	....	....	4	1	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	6	....	....	14
Eleventh	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Twelfth	....	....	....	....	....	....	1	....	1	....	1	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2	1	5
Thirteenth	1	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	....	3
Fourteenth	5	4	....	....	17	19	....	....	15	17	1	2	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	39	42	1	2	84
Fifteenth	....	....	....	....	....	....	1	....	1	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	1	2	4
Sixteenth	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	2
Seventeenth	....	....	....	....	....	....	1	3	....	....	1	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	5	7
Eighteenth	....	....	....	....	6	4	1	1	5	5	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	11	9	2	1	23
Nineteenth	1	....	....	....	1	....	....	....	2	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	1	1	6
Twentieth	1	....	....	....	....	....	....	....	2	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	1	....	4
Twenty-first	....	....	....	....	....	1	1	....	1	2	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	1	1	6
Twenty-second	....	1	....	....	....	1	1	1	1	1	2	1	....	....	2	....	....	....	....	1	....	....	....	....	....	....	....	....	1	3	5	3	12
Twenty-third	....	1	....	....	1	1	....	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3	....	....	6
Twenty-fourth	....	....	....	....	1	1	....	....	2	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	3	....	....	7
Total	12	9	2	4	34	35	14	13	48	42	24	16	5	6	2	2	1	....	....	2	....	....	....	....	....	....	....	....	100	92	42	37	271

Deaths Due to Marasmus in Year 1910, According to Age, Sex, Color and Calendar Months.

Months.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	1	1	1	....	3	3	1	2	2	6	1	1	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	7	10	3	4
February	1	....	1	....	4	....	4	....	....	1	3	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	5	1	10	....
March	....	2	1	....	1	1	....	1	4	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	5	4	1
April	....	....	....	....	1	1	1	3	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	5	1	1
May	....	....	....	....	1	2	1	....	3	....	1	....	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	4	4	3	....
June	....	....	1	....	1	3	2	....	5	2	2	1	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	6	6	6	1
July	....	1	1	....	3	2	....	....	8	3	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	12	6	2	1
August	....	....	....	1	4	....	1	....	9	7	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	9	2	1
September	1	....	....	....	2	3	3	1	6	6	4	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	10	9	7	2
October	....	....	1	....	3	2	....	2	4	6	2	2	1	1	2	1	....	....	....	....	....	....	....	....	....	....	....	....	8	9	5	5
November	1	....	....	....	....	....	1	1	4	2	3	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	3	4	2
December	....	....	....	....	....	2	1	....	....	4	1	....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	7	2	1
Total	4	2	7	2	21	19	16	7	45	45	19	6	6	7	6	3	....	....	1	1	....	1	....	....	....	....	....	....	76	74	49	14

Deaths Due to Marasmus in Year 1910, According to Age, Sex, Color and City Wards.

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First					1	2			1	3																			2	5			7
Second					1	1			1	1			1	1								1							3	4			7
Third						2				2	1		1							1									1	4	1	1	7
Fourth			5			2	10	4		1	7				4	1														3	26	5	34
Fifth					2		2			2	1	1							1										2	2	4	1	9
Sixth	1				1	1			3	2																			5	3			8
Seventh					2	1			3	2		1																	5	3		1	9
Eighth					1	1			5																				6	1			7
Ninth									1	1			1																2	1			3
Tenth					3	1	1		2	2	1																		5	3	2		10
Eleventh										1						1														1		1	2
Twelfth		1	1				1	1	1	1	1	2																	1	2	3	3	9
Thirteenth						1			1	1	1																		1	2	1		4
Fourteenth					3	3	1		13	11			2	4															18	18	1		37
Fifteenth				2					2		2			1															2	1	2	2	7
Sixteenth					2							1			1														2		1	1	4
Seventeenth			1					1	1		1					1													1		2	2	5
Eighteenth	1				2	1			3	2	1	1			1														6	3	2	1	12
Nineteenth					1				2	2	1																		3	2	1		6
Twentieth	1									1																			1	1			2
Twenty-first						1	1	1		3	1			1																5	2	1	8
Twenty-second,										1																			1				1
Twenty-third		1								2		1																	2	1	1		4
Twenty-fourth	1				2	2			3	7			1																7	9			16
Total	4	2	7	2	21	19	16	7	45	45	19	6	6	7	6	3			1	1		1							76	74	49	19	218

Deaths Due to Marasmus in Year 1911, According to Age, Sex, Color and Calendar Months.

Months.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	....	....	....	....	3	....	....	1	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	1	1
February	....	....	....	....	1	2	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	2
March	....	....	....	....	....	2	2	2	1	1	2	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	4	4
April	....	....	....	1	1	1	....	....	1	3	1	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	2	4	3	1
May	....	....	....	....	....	1	1	....	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	1	....
June	1	1	1	....	3	1	....	1	....	....	1	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	2	2	4
July	1	1	....	....	6	2	....	2	4	2	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	11	5	1	3
August	3	2	....	....	3	2	3	1	6	3	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	7	4	1
September	....	1	1	1	2	....	1	....	3	3	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	6	2	1
October	....	....	....	....	3	3	....	....	2	2	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	5	2	....
November	1	....	....	....	....	2	....	....	3	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	3	....	1
December	....	....	....	....	2	....	....	....	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	....	....	....
Total	6	5	2	2	24	16	7	8	27	16	8	8	3	2	2	....	....	....	....	....	....	....	1	....	....	....	....	....	60	39	20	18

Deaths Due to Marasmus in Year 1911, According to Age, Sex, Color and City Wards.

Wards.	Under 1 Month.				Bet. 1 and 3 Mos.				Bet. 3 and 12 Mos.				Bet. 1 and 2 Yrs.				Bet. 2 and 3 Yrs.				Bet. 3 and 4 Yrs.				Bet. 4 and 5 Yrs.				Total.				Grand Total.
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
First					1				2																				3				3
Second					1				4				1																6				6
Third					1	1			2	1																			3	2			5
Fourth			1		2		3	5			3	3	1																3		7	8	18
Fifth		1			1	1				1																			1	3			4
Sixth	1				1		1		1			1	1																4		1	1	6
Seventh								1	1																				1			1	2
Eighth	1				1				2																				4				4
Ninth						1																								1			1
Tenth					1	1				3	1	1																	1	4	1	1	7
Eleventh				1			1																								1	1	2
Twelfth						1		1			1																			1	1	1	3
Thirteenth									1																				1				1
Fourteenth	3	3		1	6	6			4	1																			13	10		1	24
Fifteenth					1						1																		1		1		2
Sixteenth			1							1	1																			1	2		3
Seventeenth							1					1																			1	1	2
Eighteenth		1			4	2	1	1	4	1						1													8	4	2	1	15
Nineteenth						1			1	1																			1	2			3
Twentieth									2	1																			2	1			3
Twenty-first						1			1	4		1												1					1	5	1	1	8
Twenty-second	1					1								1	1														1	2	1		4
Twenty-third											1	1																			1	1	2
Twenty-fourth					4				2	2				1															6	3			9
Total	6	5	2	2	24	16	7	8	27	16	8	8	3	2	2									1					60	39	20	18	137

CANCER.

TABLE No. 1—*Total Death Rate and Death Rates for White and Colored Population, Based on Census of* 1910, *from* 1903 *to* 1911, *Inclusive.*

YEAR.	*Estimated Population.	Total Deaths.	Death Rate per 1,000 of Population.	White. No. of Deaths.	White. Death Rate per 1,000.	Colored. No. of Deaths.	Colored. Death Rate per 1,000.
1903	524,407	311	0.593	285	0.621	26	0.319
1904	529,423	375	0.708	331	0.739	44	0.537
1905	534,439	376	0.704	323	0.715	57	0.690
1906	539,455	392	0.727	341	0.725	51	0.614
1907	544,471	400	0.735	347	0.753	53	0.646
1908	549,497	414	0.753	355	0.763	59	0.701
1909	554,513	403	0.727	351	0.747	52	0.614
1910	559,529	472	0.844	420	0.885	52	0.610
1911	564,547	465	0.824	410	0.856	55	0.641

*Corrected to July 1 of each year, according to census of 1910.

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TABLE No. 2—*Average Age at Death in Year* 1911—*Average at Death both White and Colored.*

	White.			Colored.			Total.		Grand. Total.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	
Number of deaths.....	159	251	410	14	41	55	173	292	465
Combined number of years.	9312.43	14682.66	23995.09	687.56	2156.97	2844.53	9999.99	16839.63	26839.62
Average age in years.....	58.568	58.496	58.524	49.111	52.609	51.718	57.803	57.669	57.719

CANCER.

TABLE NO. 3--*Deaths Due to Cancer of the Seven Organs Most Frequently Involved Primarily, Giving the Average Age at Death, Year* 1911.

ORGAN INVOLVED.	NUMBER OF DEATHS.					AVERAGE AGE AT DEATH.				Average age of white and colored combined.
	White.		Colored.		Total.	White.		Colored.		
	Male.	Female.	Male.	Female.		Male.	Female.	Male.	Female	
Liver	16	33	1	1	51	59.628	66.078	45.000	43.000	63.189
Stomach	54	50	7	9	120	58.827	61.050	49.222	65.147	59.667
Uterus	.....	44	.....	12	56	.....	53.758	.....	47.303	52.375
Breast	.....	41	.....	4	45	.....	58.567	.....	51.250	57.915
Œsophagus	4	4	.....	2	10	71.345	46.570	.....	49.000	56.960
Rectum	4	11	.....	.....	15	62.670	58.495	.....	.....	59.608
Intestines	10	8	.....	.....	18	62.826	55.956	.....	.....	59.772

TABLE No. 4—*Deaths Due to Cancer Arranged by Age, Sex, Color and Months, Year* 1911.

AGES.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 month																																																		
Between 1 and 3 months																																																		
Between 3 and 12 months																																							1								1			
Between 1 and 2 years																																																	
Between 2 and 3 years	1																																												1					
Between 3 and 4 years																																																	
Between 4 and 5 years																																																	
Between 5 and 9 years																																																	
Between 10 and 14 years						1																																								1			
Between 15 and 19 years																	1																												2					
Between 20 and 24 years		1															1																													2					
Between 25 and 29 years		2	1			1			1				1				1								1				2																5	4	1	2		
Between 30 and 34 years					1			1									2						1						1										1	1					1	3	1	3		
Between 35 and 39 years		2			1	1			1				1	1											3				1	2											1				6	11				
Between 40 and 44 years		1			1	2		1	1	5			2						1	2		1	1	1	1	1	1			2		1		3					1			2		1	1	4	20	3	7		
Between 45 and 49 years	1	4		1		5		2		1			2			1					2			2	2		1	5	1			1	1	1	2	1			1			3	2			16	21	1	6		
Between 50 and 54 years	2				1	3	1	2	2	3			1	2			1	1			1	2	3		2	3			4	2	1	2	1	5	1		4	5			3		1	2	2			22	32	3	6		
Between 55 and 59 years	1	3			1	5	1		1	3			2	4			2	3			1	1	3	1		4	1			1	4	3	1		1	1			5	5		2	2		2	3	5			27	38	3	4		
Between 60 and 64 years				1	1	1		2	2		1	3	1		2	1	5		1	2						3			1	1				6		2	6			4	4			1			16	30	1	7		
Between 65 and 69 years	4	2	1		2	1			3	4		1	2	3		1	2				2	2			2	5			2	2			2	3			2			3					3			24	34	1	2		
Between 70 and 74 years	2	4				1			2	1			4				1	4			3				1				3	6			2	2			2	2			1				18	24				
Between 75 and 79 years	2					1			1	2			1				1					1			1				1	1				1	1	1	1		1				3				8	11				2
Between 80 and 84 years		3				1		1		3		1					1					1			1	1							1	2			1			1				1				4	13				2
Between 85 and 89 years										1			1	1			1	1																			2			1								4	4				
Between 90 and 94 years																	1								1																							1					
Between 95 and 99 years																																																	1					
Total	13	22	2	2	8	23	3	7	14	25		3	13	19		4	10	21	1	5	11	12	2	3	16	19	1	4	21	21	2	3	8	26	2	2	23	23		2	8	18	1	6	14	22			150	251	14	41		

TABLE No. 5—*Deaths Due to Cancer, Arranged by Wards, Sex, Color, and Calendar Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	1	1	....	....	....	2	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1	3	....	....	1	1	....	....	....	1	....	....	2	1	....	....	....	....	....	....	1	1	....	....	8	10	....	....
Second	....	....	....	....	....	1	....	....	....	1	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	1	5	....	....
Third	....	1	....	....	....	1	....	1	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	3	1	....	....	....	....	2	1	....	1	2	....	....	....	....	....	....	1	....	....	7	9	1	1
Fourth	....	....	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	2	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	1	5	....	2
Fifth	....	2	....	....	1	....	1	....	....	....	....	....	....	1	....	....	1	1	....	....	1	1	....	....	....	2	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	6	3	1	3
Sixth	....	1	....	....	1	....	....	....	....	1	....	....	....	2	....	....	....	1	....	....	....	1	....	....	1	1	....	1	1	....	....	....	1	....	....	2	1	....	....	....	....	....	....	1	....	....	8	9	....	1
Seventh	2	4	....	....	1	1	....	1	....	....	....	1	....	1	....	....	....	....	....	....	2	3	1	....	3	....	1	....	1	1	1	....	....	1	....	3	....	....	....	....	....	....	1	1	2	....	....	11	14	4	4
Eighth	2	1	....	....	1	....	....	2	2	....	....	1	....	....	....	....	4	....	....	....	2	1	....	....	....	....	1	1	....	....	2	....	....	....	....	....	1	4	....	....	....	....	....	1	....	....	10	16	....	....
Ninth	....	1	....	....	....	....	1	1	....	....	....	....	4	....	....	....	1	....	1	....	....	....	....	....	....	1	....	....	....	2	1	....	....	2	....	....	2	....	....	....	....	....	....	1	....	....	4	12	....	2
Tenth	1	....	....	....	1	1	....	1	1	....	....	....	....	....	3	1	....	....	....	....	2	1	1	....	....	2	....	....	....	2	....	....	....	4	....	....	....	1	1	....	....	....	....	....	....	....	13	9	....	2
Eleventh	....	2	....	....	....	1	....	....	1	....	1	....	....	1	....	....	....	1	....	....	....	1	....	....	....	1	....	....	....	2	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	1	1	....	....	5	10	....	2
Twelfth	....	2	....	....	....	2	....	....	....	2	....	....	....	1	....	....	....	3	....	....	....	1	....	....	....	....	....	....	....	1	1	....	....	....	4	....	....	....	1	....	....	....	....	....	....	3	....	....	5	17	....	....
Thirteenth	....	1	....	....	2	1	....	....	2	5	....	1	2	....	....	1	....	....	....	....	....	....	1	1	....	....	3	1	....	....	1	1	....	....	1	2	....	....	....	....	....	....	....	....	1	2	....	....	13	15	....	1
Fourteenth	1	....	1	....	....	2	....	....	1	....	....	1	1	....	1	....	3	....	....	2	1	1	1	1	1	1	1	3	....	1	....	4	....	....	1	2	....	....	....	....	....	....	1	....	....	3	....	....	7	20	4	4
Fifteenth	1	....	1	....	....	3	....	1	....	3	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	1	....	....	....	2	....	....	....	2	....	....	....	....	....	....	1	3	....	....	7	14	1	1
Sixteenth	....	1	....	....	....	1	....	1	1	1	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	2	2	....	....	....	1	....	1	....	....	....	....	....	....	....	....	1	....	....	4	11	....	4
Seventeenth	....	....	....	1	1	1	1	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	1	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	3	....	....	2	2	2	7
Eighteenth	....	1	....	....	....	2	....	....	....	2	....	1	1	....	2	2	....	....	....	....	....	....	....	....	....	2	....	....	....	1	....	....	....	1	1	3	....	....	....	....	....	....	....	....	....	1	....	....	6	16	....	2
Nineteenth	....	....	....	....	....	2	....	....	....	1	....	1	2	....	....	....	1	....	....	....	....	....	....	2	1	....	....	....	2	....	....	....	....	....	2	....	....	....	1	3	....	....	....	....	....	....	....	6	12	....	....
Twentieth	1	....	....	....	1	....	....	....	1	1	....	....	3	....	1	....	....	....	1	....	....	1	....	....	....	1	1	....	....	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	8	11	....	....
Twenty-first	1	1	....	....	....	....	....	....	....	2	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	1	....	....	3	7	....	....
Twenty-second	....	2	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	1	....	....	....	1	....	....	....	1	....	....	....	1	....	....	....	....	1	1	....	....	....	....	....	....	....	....	1	1	....	....	3	8	1	1
Twenty-third	1	1	....	....	....	2	....	....	....	1	....	1	....	1	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	1	1	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	4	8	....	....
Twenty-fourth	1	....	....	....	....	....	....	2	1	....	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	7	5	....	....
Bay View	1	....	....	1	....	....	....	1	1	....	1	1	....	....	1	....	1	....	1	1	....	....	....	2	....	....	....	....	....	2	1	....	....	1	....	....	....	....	....	....	....	....	....	....	1	....	....	10	3	....	1
Sydenham	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	13	22	2	2	8	23	3	7	14	25	....	3	13	19	....	4	10	21	1	5	11	12	2	3	16	19	1	4	21	21	2	3	8	26	2	2	23	23	....	2	8	18	1	6	14	22	....	....	150	251	14	41

CANCER.

TABLE No. 6—*Deaths Due to Cancer Arranged by Occupation and Social Condition, Year* 1911.

Artists	1	Jobbers	1
Agents (insurance)	1	Laborers	2
Agents (real estate)	1	Launderers or laundresses	8
Barbers	1	Liquor dealers	1
Boarding-house keepers	1	Machinists	1
Butchers	6	Manufacturers	2
Builders and contractors	1	Merchants	8
Brickmakers	1	Mill hands	2
Bricklayers	2	Ministers	1
Blacksmiths	3	Music teachers	1
Boxmakers	1	Nurses	2
Bookkeepers, clerks	4	Oystermen	1
Carpenters	7	Painters	2
Candymakers	1	Plasterers	1
Cabinetmakers	3	Physicians	2
Cigarmakers	1	Plumbers	1
Cooks	5	Policemen and watchmen	2
Drivers	2	Postoffice employees	1
Dressmakers and seamstresses	4	Produce dealers	1
Dairywomen	1	Porters	1
Druggists	1	Printers and engravers	1
Doctors	1	Religieuse	3
Domestics	21	Roofers	1
Engineers (stationary engine)	1	Restaurant keepers	1
Elevator boys	1	Salesmen	5
Forewomen	1	Steam railway employees	1
Fishermen	1	Street railway employees	1
Factory hands	2	Stonemasons	2
Farmers	3	Shoemakers	2
Farm laborer	1	Servants	1
Grocers	1	Superintendents	1
Gardeners	2	Stevedores	3
Government employees	1	School children	1
Harnessmakers	1	Tailors or tailoresses	9
Hotel proprietors	1	Teachers	5
Housewives	131	Upholsterers	1
Hodcarriers	1	Waiters	2
Hucksters	1	No occupation	140
Ironworkers	1		

Social Condition.

Unknown	2	Widowers	34
Married	247	Widows	109
Single	73	Total	465

TABLE No. 1—*Showing Deaths by Color, Sex, Wards and Calendar Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	2	1				1			1				1	3			2				1				2	1			1		1		1	1				2							1		12	9	1	1
Second	1	3			1	1								1	1		1	2				1			1				2				2	1			1	2					1	3		1		11	12	2	1
Third	2	2					2	1	1				1	1	1				2			1			1					2				2	1									1		2	3		1	7	11	4	2
Fourth	3	1	1		2	1			2	1			1	1	2		1	4			1	1	2		1	5	2		1		1	1			2			1	1				1	1	1		20	14	4	5
Fifth			3	4	1	1	1		1			1		2			1	1	3			1			1	1		1	1		1	1			1	3	2			1		2		1	2	1	3	8	8	13	13
Sixth	1	3	1			2			1		1		1				2	1			1	1	3		1					2	1	2			1		2	1	2	2		1	4	1			16	10	9	3
Seventh		4	1		1				2	2				1	2	1		1				2				1			1	1	2		1	1				1		2			1	3			6	19	3	4
Eighth	3	2			2	2			1	6			3	4			1	1				2			2	2				1			1	1													14	23		1
Ninth	1	2			1	2			2	1		1	3	2			2				2	2			2				1	1					1		2		4		2	2	3			15	21		4
Tenth		1			1	1		1		4		1	1	3			3	2			2	3			3	3			1		1	2	3	1			2	2		2	4		1	3	2		1	23	22	2	7
Eleventh		3	2	3	2	2	1	3	3	1	1	1	1	1	1		2	1	1	1	1	2		2	2		1	2	1					2		2	2	3	2		1	2	1		3	1	2	1	18	18	12	15
Twelfth	5	2			2			2	1	3			1	3			3	1		2		1							1		1					2	2			2	2	1	3		1			17	15	2	7
Thirteenth		4			2	1			1	3	1						5	1			3	1			1	1			1						1	1			1	1			1				11	19	2	1
Fourteenth		2			1	2			1	3		1		2			2				2		2		3	1					1		1	1			3	1		1	2			3	13	17	4	6
Fifteenth	1		1		1		1	1	2		1		2	3	1		1	2			1	1	1			4		2		1			1	1	2	1		1	3	1	1	3	2			14	18	7	5
Sixteenth	1	1	1	1	1	1	1						2	1			3	1			1	1							1	1			1		5		1			5							13	11	4	2
Seventeenth	1		3	3	1	1		6	1			1	1			4	1	2		3	1		3	2				1		2			1	3	1						2	2	1	2	2	2	8	5	13	28
Eighteenth	2		1			1		1	1	5	2	1	2	1	1		1	2		2				3		1	1		1		1					3		1					3	2	1		13	12	8	7
Nineteenth	3	7			1	2				3		2	4	2			1	2		1	2	2				1				1			1	2			1	1	2	3	1	1			15	25	2	6
Twentieth	2	5			4	1			1	4		1		4			1	2				2				1	1			1	2			2						1	2					15	22		1
Twenty-first		2			2		1	1	1	1		1		1		1	1	1			2	1	2			3	1	2			1	2				2					2	1		1	11	15	4	6
Twenty-second	2	1	2	3	2		1		2				1	3	1		1	3	1		1	2	2	1	1				1			2			1		1		1			1		1	1		13	6	13	10
Twenty-third		1		1	3				1	2		1		1			1	1	2		2	1			1				1			1	1	2	1					2						13	9	5	3
Twenty-fourth	1				1	4			1	2			2				3				2				1				1	1			1				3				2				15	10		
Bay View	3		2	2	1				1		1	1	2		1		1	2		2						1			1	2	1		2				1	3	1	1	1	1					12	9	5	7
Sydenham																																																		
Total	34	47	18	17	33	26	8	16	28	41	7	14	27	42	7	10	34	35	10	13	26	25	15	9	23	27	6	8	15	12	9	9	20	16	5	13	32	28	12	10	22	27	12	11	39	34	10	15	333	360	119	145

TABLE No. 2—*Showing Deaths by Age, Sex, Color and Months, Year* 1911.

AGES.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.				Grand Total
	White.		Colored.		White.		Colored		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Under 1 month			1	1	1	1						1					1	1	1			1		1				1		1					2		1	1						1			6	4	4	3	17
Between 1 and 3 months					1																1												1	1											2	1	1		4
Between 3 and 12 months	1												1												1										1											3	1			4
Between 1 and 2 years									1	1																					1														2	1			3
Between 2 and 3 years																	1																												1				1
Between 3 and 4 years																																																
Between 4 and 5 years																																																
Between 5 and 9 years		3			1												1																												1	5			6
Between 10 and 14 years	1											1		2		1	1	1							1				1					1			2			1	1			4	8		3	15
Between 15 and 19 years	2					3		1		1			1				1	1					3				2			1							2							6	9		3	18
Between 20 and 24 years		1			2	2			1	1	1	1	1	2							1	1	1				1			2			2			1							10	6	2	6	24
Between 25 and 29 years		2	2	1				1		2		1	1	3					2	4		1	2			2		1			1							3			1		1	5	10	8	8	31
Between 30 and 34 years	1	3		1	2	1		3	1	1		2		2						1		1	2					1			2	2	1		1				1				7	11	4	9	31
Between 35 and 39 years	2		2		3			1	1		1		2	2	1	2	1				2	1		2					1			1		3				1		4	1	3	2	14	7	12	9	42
Between 40 and 44 years	3	1	2				1	1		3	1	1	1	1	1	2	1		1	1	1	4	2	2			2		1	3	1	1			1	2	2	1		2	1	2	1	2	2	2	16	13	17	13	59
Between 45 and 49 years	1	5	2	1	1	1	3		4	2	2		1	1	2		1		1	2	2	1	1	1		2	2	1	1	1		2	1		1	2	4		1	1		2	4	3		1	20	16	17	12	65
Between 50 and 54 years	4		1	2	1	2	1	2	4	4		3	4	5		2	2	2	2	2	2	1		1	1	1	1	1	1	1		2		4	4	4	1	2	4	2	2	1	1	1	1	2	28	26	11	22	87
Between 55 and 59 years	2	4		2	2	2		1	2	3		2	1	1	1	1	1	1	1	2	4	1		1	6	1		2		1	2	1		1	3		2	1	1	3	1	1	6	5		4	25	30	7	15	77
Between 60 and 64 years	5	5	2	1	7	3		4	3	3	1		5	2	1		7	1		2	4	2	2	2	2	2			3	1	2	1	5			2	6	4		1	5	2	1		5	4	1		57	29	12	13	111
Between 65 and 69 years	3	7	3	1	3	4	1	1	2	4			4	6			4	5	1		3	1	2		4	5			1	2		1	2	4			4	5			1	4	1		5	3	1	1	36	50	9	4	99
Between 70 and 74 years	3	7	1	2	2	3	1		4	9		1	4	3		1	3	6	1	1	3	3			1	1		1	1	1	1	3	4	1		1	6	1		2	5		2	5	3			32	51	5	9	97
Between 75 and 79 years	3	3	1	1	6	2		1	4	3			2	8		1	5	7	1	1		4			1	2			2	3			1			2	1	1		3	6		3	4	2	1		32	42	4	7	85
Between 80 and 84 years	2	4		1	1	1			1	4			1	3		1	2	5	1		2	2			4	3			1	1			1	4	1	1	1					4	1	1	17	31	3	4	55
Between 85 and 89 years	1	2	1	1		3					1		1				1	1	1						2		1		1				1								1		2		1	8	8	3	4	23
Between 90 and 94 years																	1									1																			1	1		1	3
Between 95 and 99 years																		1																											1			1
Between 100 and 109 years							1																																							1			1
Total	34	47	18	17	33	26	8	16	28	41	7	14	27	42	7	10	34	35	10	13	26	25	15	9	23	27	6	8	15	12	9	9	20	16	5	13	32	28	12	10	22	27	12	11	39	34	10	15	333	390	110	145	987

HEART DISEASES.

TABLE No. 3—*Showing Deaths by Occupation and Social Condition, Year* 1911.

Attorneys	1	Florists	1
Agents (commission)	1	Grocers	2
Agents (insurance)	1	Gardeners	2
Agents (real estate)	2	Glassblowers	1
Bakers	2	Housewives	153
Barbers	5	Hodcarriers	2
Bartenders	3	Hucksters	1
Boarding-house keepers	2	Hostlers	1
Brokers (money and stock)	2	Inspectors	1
Boilermakers	1	Ironworkers	4
Butchers	4	Jobbers	2
Builders and contractors	3	Janitors	5
Blacksmiths	1	Laborers	100
Basketmakers	1	Launderers or laundresses	21
Boxmakers	3	Lawyers	2
Bookkeepers, clerks	12	Lamplighters	1
Broommakers	1	Liquor dealers	1
Carpenters	13	Matrons	2
Chambermaids	1	Machinists	1
Confectioners	1	Marble polishers	1
Carriage and wagon builders.	1	Manufacturers	4
Cabinetmakers	1	Machine manufacturers	1
Collectors	2	Moulders	2
Coachmen	3	Merchants	15
Clergymen	1	Managers	2
Cigarmakers	3	Mechanics	2
Cooks	24	Mill hands	1
Conductor (not specified)	1	Ministers	5
Coopers	1	Nurses	3
Cutters	1	Oyster shuckers	1
Drivers	6	Painters	4
Dressmakers and seamstresses.	8	Packers	1
Druggists	1	Paperhangers	2
Dentists	1	Physicians	7
Distillers (except turpentine).	1	Plumbers	1
Doctors	1	Policemen and watchmen	2
Domestics	63	Postoffice employees	1
Electrical workers	1	Porters	4
Engineers (electrical)	1	Printers and engravers	1
Engineers (stationary engine).	2	Religieuse	1
Elevator boys	1	Restaurant keepers	1
Foremen	6	Salesmen	11
Fruit dealers	1	Seamen	1
Fish dealers	2	Steam railway employees	9
Fishermen	1	Street railway employees	1
Factory hands	1	Shirt factory hands	1
Farmers	5	Shoemakers	5
Farm laborers	1	Stewardesses	1
Firemen (stationary engine)	1	Sextons	1

(Continued on Page 98.)

HEART DISEASES.

TABLE No. 3 (Continued)—*Showing Deaths by Occupation and Social Condition, Year* 1911.

Storekeepers	4	Teachers	2
Servants	9	Traveling salesmen	1
Superintendents	1	Undertakers	1
Stenographers	1	Waiters	5
Stevedores	6	Waitresses	2
School children	13	Weavers	2
Tailors or tailoresses	9	Whitewashers	1
Tanners	1	Woodsawyers	1
Teamsters	3	No occupation	298

Social Condition.

Unknown	12	Widows	216
Divorced	4	Widowers	96
Married	411		
Single	218	Total	957

TABLE No. 1—*Showing Deaths by Color, Sex, Wards and Calendar Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First						1			3				1	2			1					3			1	1							2	1			4	1			3				2	2			20	8		
Second	3				1	1			1	4			1	2			2	2				1			2	2		1		1				1				1			2	2			1				14	16		1
Third	3				1	2				2	2		1	1			1	1			1				1		1		2								1				1				1			1	9	10	3	2
Fourth	1	1		1			1		1		1	1	1	3			1	1	3			1			3	2		1	2	1			1		1		2	3		1	1	1	3					16	16	7	4
Fifth		1	1		1		1		1		1			1		1	1	1	2	1			1	1			1		1	1	1	1	1		2		1		1		1	1	1	3		2		8	5	13	6
Sixth		2	1		2	1			3				1	2	2		2	1					1		1	2		1	7				1				2	1			1	4	1		1	2			21	15	5	1
Seventh	3	1			2	1		1	1	1			3	3			1	3		1	1				3				2			1	5	1			2	2			2	2			4				29	14		3
Eighth		1			5	1			3	3			1						2		2	1				2		1		3							1				1	3			1	1			13	17	2	1
Ninth	3	3	1		2				1				1				3	1			1	1			2	5			2	1			1				1	3			3	1			6	1	1		25	17	2	
Tenth	1		1			1		1	1	1		1	1	1							1					1			2	1			1	1			3				3	2						1	9	9	4	3
Eleventh	2		1	2		2	1	1	1	2	1	1	1		2	3	1	3	1		1	2	1			1	1	1		2	1			1	2	1		3	2	1	2	1	1	1	1	1		1	12	17	13	11
Twelfth	1	2			3	3			4	2			6	1		3	2								1	1	1		1	2			1		1		1	1				3		2		1	20	15	3	5
Thirteenth	1	2			2	1			2	2			1				1	1			1				2				1	1			1	1			1				1				2				14	10		
Fourteenth			1	1	2			2	1	1		1	2			1	4		2	4	3	1		2	1		2			1			1	1		3		2		2	3	2		4	1	3	17	8	12	18
Fifteenth		2		2	2		2		3	2				1	1	1	2	2			1					2			1			1	1	2	5	1	1	2		1	1	3	2	2	1		2	14	15	11	9
Sixteenth		3		1	4	3			3	4			2	1	1	1	3	1	1	1	1		1	1	2	1	1	1	4				2	3			1	3	1		5				2				24	24	5	5
Seventeenth	1	2	1	1	1						1	2	2	4	3		1	1	3	1		2							1	1	1		1	2	1			2	1	2		1	1			4	9	14	15
Eighteenth	2	1			1	1	1		1	1			3				3		1		2				1	1			1	1				2			1		1	3	1		2	2	3	1	15	16	2	4
Nineteenth	5	2			2	1			2		1		1	2			1				2	4			2	1			2				1	1			1	2	1	1	1	2	1		3	3		1	22	20	3	1
Twentieth	2				4	1			2	1			1	2			2	3			1				1				1	1			4	1				1			1	2			3	1			22	13		
Twenty-first	1	2	1		1	2			1				2				2				1	1				1			1	3				1	1		1	1			1	1			3	2			14	14	2	
Twenty-second	2				1	1			1				1				2				1	1	1												2		1	1	1	1		1	1					11	5	4	5
Twenty-third	2	3			1				2	2		1		3			1	2			2	1			1				2	1		1	2				1			1				1				12	15	2	3
Twenty-fourth	1	1							1				3	2			2	1			1	2				2			2				1	2			1				1				1				11	13		
Bay View				1	5	1	2	1	1	1	2	1		1	1	1	1		1		1	2					1	1		1			1	2	1		2	1				1	1			3			1	15	8	9	7
Sydenham																																																			
Total	34	29	8	9	43	24	8	6	39	30	9	8	33	31	11	14	36	27	13	12	23	21	8	4	24	24	9	8	20	29	5	5	27	21	15	6	31	29	7	9	31	39	15	15	44	25	8	8	391	320	110	104

TABLE No. 2—*Showing Deaths by Color, Sex, Wards and Calendar Months, Year* 1911.

AGES.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.				Grand Total
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Under 1 month																																																	
Between 1 and 3 months																																																	
Between 3 and 12 months								1																																								
Between 1 and 2 years														1																						1									1	2			3
Between 2 and 3 years																																													1	1			2
Between 3 and 4 years						1																																								1			1
Between 4 and 5 years																																																
Between 5 and 9 years													1																																1				1
Between 10 and 14 years	1		1						1				1	1								1																						3	3	1		7
Between 15 and 19 years					1				2					1										1			1																	2	5	1		8
Between 20 and 24 years									1						1		1		2									1			1			1		1				2			2	6	1	5	14
Between 25 and 29 years		1	2	1	2				1		1	3		2	3	1		1	2	1		1					1	2			2	1	4		1	1		1			2		1	1		11	7	11	10	39
Between 30 and 34 years	1	2	1		1	1		2	1	2				1	1	3		1	1		2			1				2			1	1	1	1		1	1	3	3			2				11	12	9	7	39
Between 35 and 39 years	1	1	1	1	1	1			2	1					1	3	3			1		2		1	3	1		1	2			1	1			1	3	1	2		4	2				18	10	6	9	43
Between 40 and 44 years	2	3	1	2	2				1	4		1	1				2	3	2		1	2	2		1	2	1	1	2	2			2	3	1	2	2	1	2		5	2	3	1	2	1	1	19	22	10	15	66
Between 45 and 49 years	3	3			3	1			7	4	1		1	1	1		2	2	3		2	1	1	1	1	2	1	1	3	1	1	1	3		1	1	1	1	1	1	5	1	1	4	4	2	1	27	29	12	8	76
Between 50 and 54 years	2	3			4	3	1		6	2	1	5	6	3	3	2	5	3	2	1	3	4	1			3	1		1	7	4	1	4	1	3	2	3	4	2	2	5	5	2	1	5	2	1	3	44	40	21	17	122
Between 55 and 59 years	3	2			7	2	1		5	5	2	1	1	4	3	1	6	2	3	1	1	1	1	1	4	2	4	1	4	2			2	1			2	1	1		3	1		2	6				44	23	15	7	89
Between 60 and 64 years	4	5	1	4	6	5	3		3	2			2	9		1	2	1			3				4	2	2	1	2	7			3	4	1		4	3	1		6	2		2	4	2		1	43	42	8	10	103
Between 65 and 69 years	5	4		1	8	3	2	2	3	2			7	2			5	5	3		3	2		1	1	3			4	3		1	4	1	1		2	4	1	1	2	3	1	2	6	1			50	33	8	8	99
Between 70 and 74 years	8	1	1		3	2			2	2			4	2			4	3	1	2	3	4			6	3			4	1			3	2			5	4			4	5	3	2	6	5	2		52	34	7	4	97
Between 75 and 79 years	1	2			3	3		1	3	3	1		5	4			3	3			2	2			1	5			2	1			3	4			4	2			2	3			1	3			30	35	1	2	68
Between 80 and 84 years	2	2			1				4	2				1	1		1	1			2	1			1	1			1				2	2			3	3			1	1			2	2			19	17	1		37
Between 85 and 89 years	1				2				1				1												1				1				1				2	1			1				2		1	1	12	1	3		17
Between 90 and 94 years						1				1				1				1				1								1																		6			7
Between 95 and 99 years													1																																					1
Total	34	29	8	9	43	24	8	6	39	30	9	8	33	31	11	14	36	27	13	12	23	21	8	4	24	24	9	8	26	29	5	5	27	21	15	6	31	29	7	9	31	39	15	15	44	25	8	8	391	329	116	104	940

BRIGHT'S DISEASE.

TABLE NO. 3—*Showing Deaths by Occupation and Social Condition. Year* 1911.

Authors	1	Gold and silversmiths	1
Agents (insurance)	1	Gardeners	1
Agents (real estate)	2	Glassblowers	1
Agents (not specified)	2	Government employees	1
Bakers	4	Gilders	1
Barbers	5	Harnessmakers	1
Bartenders	3	Hatters	1
Brokers (commercial)	3	Hotel proprietors	1
Butchers	7	Housewives	148
Builders and contractors	5	Hucksters	1
Brassworkers	2	Hostlers	2
Bricklayers	2	Inspectors	1
Blacksmiths	3	Ironworkers	5
Bootblacks	2	Jobbers	1
Bookkeepers, clerks	23	Janitors	5
Boat captains	1	Jewelers (dealers)	3
Bookbinders	1	Junk dealers	1
Carpenters	16	Laborers	80
Chambermaids	1	Launderers or laundresses	10
Chefs	1	Lawyers	2
Chemical manufacturers	1	Livery stable keepers	2
Coal dealers	1	Machinists	7
Cabinetmakers	3	Marble polishers	1
Collectors	1	Manufacturers	4
Coachmen	2	Moulders	1
Clergymen	1	Merchants	12
Canmakers	1	Mechanics	1
Cigarmakers	2	Messengers	1
Cooks	16	Mariners	1
Coopers	4	Ministers	3
Cutters	2	Manicurists	1
Decorators (house)	1	Nurses	2
Drivers	12	Newspaper carriers	3
Dressmakers and seamstresses	2	Nurserymen	1
Druggists	3	Nickelplaters	1
Doctors	2	Oyster shuckers	1
Domestics	67	Oilers (not specified)	1
Electrical workers	2	Painters	12
Engineers (mechanical)	1	Piano makers	1
Engineers (civil)	2	Plasterers	1
Engineers (stationary engine)	3	Photographers	2
Foremen	2	Packers	1
Fish dealers	2	Paperhangers	1
Factory hands	2	Peddlers	1
Farmers	9	Physicians	1
Firemen (Fire Department)	1	Plumbers	2
Florists	1	Policemen and watchmen	3
Grocers	6	Postoffice employees	1

(Continued on Page 100.)

BRIGHT'S DISEASE.

TABLE No. 3 (Continued)—*Showing Deaths by Occupation and Social Condition. Year* 1911.

Produce dealers	2	Superintendents	5
Porters	5	Steamfitters	1
Printers and engravers	2	Stevedores	5
Restaurant keepers	1	School children	6
Saloonkeepers	3	Tailors or tailoresses	4
Salesmen	8	Tanners	1
Saleswomen	3	Teamsters	5
Sea captains	1	Teachers	4
Seamen	7	Tinners	2
Steam railway employees	10	Telegraph operators	1
Stonemasons	2	Traveling salesmen	3
Shoemakers	4	Typesetters	1
Stonecutters	1	Waiters	10
Sextons	3	Waitresses	1
Ship carpenters	2	Woodworkers	2
Storekeepers	2	No occupation	258
Servants	2		

Social Condition.

Unknown	9	Widows	181
Divorced	10	Widowers	110
Married	457		
Single	173	Total	940

TYPHOID FEVER.

TABLE No. 1—*Showing Deaths by Wards, Months, Color and Sex, Year* 1911.

(Non-residents in separate column and not included in total.)

WARDS.	Non-residents.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	3	....	....	....	1	1	....	....	....	....	....	....	....	7	1	....	....
Second	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	2	1	....	....	....	....	....	....	....	....	....	....	....	4	1	....	....
Third	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	2	....	....	....	....	....	....	....	....	....	....	....	2	1	....	....
Fourth	11	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....
Fifth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	1	....	....	....	....	....	2	....	1	....
Sixth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	2	....	....	....	1	....	....	....	4	....	1	....
Seventh	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	1	1	....	....	....	....	4	4	....	....
Eighth	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	1	....	....	....	....	....	....	5	2	....	....
Ninth	5	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	2	....	....	....
Tenth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	1	....	....	1	....	....	....	2	2	....	....
Eleventh	2	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	1	1	2	....
Twelfth	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	1	....	....	....	1	....	....	....	4	3	....	1
Thirteenth	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	2	....	4	....	....	....
Fourteenth	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1	1	2	1
Fifteenth	....	2	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	3	3	....	....
Sixteenth	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	1	....	....	....	....	....	1	1	....	2	....	....	....	2	....	....	....	....	....	....	4	1	3	1
Seventeenth	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	2
Eighteenth	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	2	....	....	1
Nineteenth	2	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....
Twentieth	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	4	1	....	....
Twenty-first	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	....	....	....	....	1	1	....	....	1	1	....	....	4	4	....	....
Twenty-second	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	1	1	....	....	....	4	2	1	....
Twenty-third	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....
Twenty-fourth	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	1	2	....	....	....	....	....	....	6	3	....	....
Bay View	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....
Sydenham	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	27	6	2	1	1	1	1	....	1	1	3	1	....	7	1	....	....	4	3	....	....	2	1	2	2	2	1	1	....	6	6	1	1	16	5	3	....	14	5	....	....	9	6	1	1	1	5	1	1	69	39	11	7

TABLE No. 2—*Showing Deaths of Non-Residents Only by Sex, Color and Months, Year* 1911.

HOSPITALS.	Days.	White.		Colored.		Residence.	Month.
		M.	F.	M.	F.		
Mercy.							
In hospital	4	.....	1	.....	.....	902 South First street, Canton	August.
In hospital	24	.....	.....	.....	1	Second street, Brooklyn, Md	August.
In hospital	2	.....	.....	1	.....	Towson, Md	August.
University.							
In hospital	2	1	.....	.....	.....	Sykesville, Md	January.
In hospital	12	.....	.....	.....	1	Hughesville, Md	August.
In hospital	14	.....	1	.....	.....	Bowie, Md	August.
In hospital	13	.....	.....	.....	1	Bryantown, Md	September.
In hospital	16	.....	1	.....	.....	Goldsboro, Md	September.
In hospital	5	1	.....	.....	.....	Summerfield, Md	September.
In hospital	12	.....	1	.....	.....	Raspeburg, Baltimore County	October.
In hospital	17	.....	.....	1	.....	Brunswick, Md	October.
Johns Hopkins.							
In hospital	5	1	.....	.....	.....	3418 Hudson street	August.
In hospital	11	.....	.....	1	.....	Non-resident	September.
In hospital	19	1	.....	.....	.....	Ellicott City, Md	October.
In hospital	10	1	.....	.....	.....	3234 Eastern avenue	October.
In hospital	11	1	.....	.....	.....	611 Masachusetts avenue, Washington, D. C.	October.
In hospital	13	1	.....	.....	.....	Cascade, Md	October.

(Continued on Page 102.)

TYPHOID FEVER.

TABLE No. 2 (Continued)—*Showing Deaths of Non-Residents Only by Sex, Color and Months, Year 1911.*

HOSPITALS.	Days.	White.		Colored.		Residence.	Month.
		M.	F.	M.	F.		
St. Joseph's.							
In hospital	18	.....	1	.....	.....	3712 East Lombard street	September.
In hospital	34	.....	.....	.....	1	333 Hillen road, Towson, Md.	September.
In hospital	14	.....	.....	.....	1	Towson, Md.	October.
In hospital	5	1	.....	.....	.....	Perryman, Md.	November.
In hospital	1	1	.....	.....	.....	Non-resident	November.
Maryland General.							
In hospital	10	.....	.....	1	.....	Belair, Md.	August.
In hospital	37	.....	.....	.....	1	The "Rocks," near Belair road	September.
Franklin Square.							
In hospital	14	.....	1	.....	.....	Curtis Bay	June.
In hospital	26	.....	1	.....	.....	Brooklyn, Anne Arundel County, Md.	August.
U. S. Marine.							
In hospital	7	1	.....	.....	.....	Non-resident	October.
Total	.....	10	7	4	6		

TYPHOID FEVER.

TABLE No. 3—*Showing Deaths by Age, Sex, Color and Months, Residents Only, Year* 1911.

AGES.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 month																																																		
Between 1 and 3 months																																																		
Between 3 and 12 months																																																		
Between 1 and 2 years	1																																											1						
Between 2 and 3 years																									1																									
Between 3 and 4 years																															1				1												1			
Between 4 and 5 years													1																																		1			
Between 5 and 9 years																															1				1	1											3	2		
Between 10 and 14 years									1																1						1	1	1	1				3	1			1						3	4	2	1
Between 15 and 19 years						1			1				1				1					1							2	1			3	1			1	1			2			1			8	8	1	1
Between 20 and 24 years													2					2							1				2		1		1				2	2					1				10	6	1	
Between 25 and 29 years	1	1		1				1	1					1				1				1								3				3				2				1	1				11	4	1	2
Between 30 and 34 years	2	1	1		1								1				2					1							1	1			4	1			2	1									14	5	2	
Between 35 and 39 years	1												1								1								1		1		1				1			1							7	1	1
Between 40 and 44 years											1										1				1				3	1				1				1									5	4	1	
Between 45 and 49 years	1																								1								1								1						2	2		
Between 50 and 54 years													1												1														1								2		2	1
Between 55 and 59 years																															1				1												1	1		
Between 60 and 64 years										1							1																												1	1		
Between 65 and 69 years																																														1			
Between 70 and 74 years																																																	
Between 75 and 79 years																																																	
Between 80 and 84 years																																																	
Between 85 and 89 years																																																	
Between 90 and 94 years																																																	
Between 95 and 99 years																																																	
Total	6	2	1	1	1	1		1	1	3	1		7	1			4	3			2	1	2	2	2	1	1		6	6	1	1	16	5	3		14	5			9	6	1	1	1	5	1	1	89	38	11	7

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TYPHOID FEVER.

TABLE No. 4—*Showing Deaths by Occupation and Social Condition, Residents Only, Year* 1911.

Attorneys	1	Managers	2
Agents (not specified)	1	Oil works employees	1
Brewers	1	Painters	1
Ball players	1	Plumbers	2
Bakers	1	Policemen and watchmen	1
Bartenders	1	Porters	1
Boilermakers	1	Printers and engravers	2
Butchers	1	Salesmen	1
Builders and contractors	1	Saleswomen	3
Bookkeepers, clerks	6	Seamen	1
Carpenters	1	Steam railway employees	3
Cooks	1	Street railway employees	1
Coopers	1	Stonecutters	1
Drivers	2	Ship carpenters	1
Druggists	1	Servants	1
Domestics	2	Stenographers	1
Electrical workers	1	Stevedores	1
Engineers (electrical)	1	School children	3
Engineers (civil)	1	Tailors or tailoresses	2
Hatters	1	Telephone operators	1
Housewives	15	Waiters	2
Hucksters	2	Watchmakers	1
Laborers	9	Weavers	1
Launderers or laundresses	2	Wheelwrights	1
Machinists	1	Woodworkers	1
Manufacturers	1	No occupation	32
Moulders	1		

Social Condition.

Married	61	Widowers	1
Single	60		
Widows	4	Total	126

SCARLET FEVER.

TABLE NO. 1—*Showing Deaths by Wards, Sex, Color and Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	1																				1												2														4			
Second									1	1							1																														1	2		
Third																																																	
Fourth																																																	
Fifth	*1												1																																1	1		
Sixth					1	1															1																								1	2		
Seventh									1								1																				1					1				2	2		
Eighth										1																																				1		
Ninth																					*1																									1		
Tenth																																																
Eleventh																																																
Twelfth					1	*1																																						1	1		
Thirteenth												1					1																1												1	1		1
Fourteenth		*1												1																															2			
Fifteenth						1												1	1																										1	1	1	
Sixteenth																																																
Seventeenth																																																
Eighteenth																																																
Nineteenth									1					1																															1	1		
Twentieth		1							1								1																				1					1				5	1		
Twenty-first		1																																												1		
Twenty-second														*1																															1		
Twenty-third	1					1																																					2		3	1		
Twenty-fourth					1					1																																		1	1		
Bay View																																																
Sydenham																																																
Total	3	3			3	4			4	3		1		4			1	3	1	1	1	2											3				1				2		3	1			21	20	1	2

*Died in Sydenham.

SCARLET FEVER.

TABLE No. 2—*Showing Deaths by Ages, Sex, Color and Months, Year 1911.*

AGES.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 month																																																		
Between 1 and 3 months																																																	
Between 3 and 12 months	2												1								1																								2	1	1			
Between 1 and 2 years		1								1			1				1																1										1	1			2	5		
Between 2 and 3 years									2								1				1	1	1										1												4	2		1
Between 3 and 4 years					2				1								1																												4				
Between 4 and 5 years						2					1			1																												1			2	3		1
Between 5 and 9 years	1	1				1			1	2				1									1												1							1			5	6		
Between 10 and 14 years					1																																							1				
Between 15 and 19 years		1															1																1											1	2		
Between 20 and 24 years																																																
Between 25 and 29 years																																																
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Between 85 and 89 years																																																
Between 90 and 94 years																																																
Between 95 and 99 years																																																
Total	3	3			3	4			4	3		1		4			1	3	1	1	1	2									3				1				2				3	1			21	20	1	2

TABLE No. 1—*Showing Deaths by Wards, Sex, Color and Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First																																	1														1			
Second																					1													1														2			
Third						2																																									2			
Fourth																															*1																1			
Fifth					1																																									1			
Sixth									1																																					1			
Seventh						1																																						1	1			1	2		
Eighth	2								1																																			2				5			
Ninth		1			1																																								1				1	2		
Tenth		1																			1				1																				1	2				
Eleventh														1																																			1		
Twelfth																																																		
Thirteenth					1																1																				1						3			
Fourteenth		1	1		1																1	3																								3	4	1	
Fifteenth										1	1																			1																	2	1	
Sixteenth										1																																					1		
Seventeenth																																																	
Eighteenth						1																																								1		2		
Nineteenth																																																	
Twentieth					1					1								1																													2	5		
Twenty-first									1								1																														4	1		
Twenty-second																																															2	1	
Twenty-third																	1																	2													4	3		
Twenty-fourth					1				1																1								1													5	1		
Bay View																																			1														1
Sydenham																																																	
Total	2	3	1	....	6	4	....	....	4	3	1	....	....	1	....	2	1	....	....	2	5	....	....	2	....	....	....	*1	1	....	....	3	4	....	1	3	3	....	....	2	3	1	....	6	4	....	....	33	31	4	1

*Died in Sydenham.

DIPHTHERIA.

TABLE NO. 2—*Showing Deaths by Ages, Sex, Color and Months, Year* 1911.

AGES.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 month																					1	3																							1	3				
Between 1 and 3 months																																																		
Between 3 and 12 months					1						1																										1				1						2	1	1	
Between 1 and 2 years	1	1			2	3			1					1			1	1							1					1			1	1							1			2			9	7	2	
Between 2 and 3 years		1								1																							1				1					1	1			3	3		
Between 3 and 4 years		1	1		1	1			1	1																			1				1					1					1				5	5	1	
Between 4 and 5 years	1				1																1	2			1																					4	4		
Between 5 and 9 years									1	1							1																3				1	1			1				2	3			6	8		
Between 10 and 14 years																																					1												1			
Between 15 and 19 years									1																												1												1			
Between 20 and 24 years																																																		
Between 25 and 29 years																																																		
Between 30 and 34 years																																																		
Between 35 and 39 years																																																		
Between 40 and 44 years																																																		
Between 45 and 49 years																																																		
Between 50 and 54 years																																																		
Between 55 and 59 years					1																																1												1			1
Between 60 and 64 years																																																		
Between 65 and 69 years																																																		
Between 70 and 74 years																																																		
Between 75 and 79 years																																																		
Between 80 and 84 years																																																		
Between 85 and 89 years																																																		
Between 90 and 94 years																																																		
Between 95 and 99 years																																																		
Total	2	3	1		6	4			4	3	1				1		2	1			2	5			2				1	1			3	4		1	3	3			2	3	1		6	4			33	31	4	1

WHOOPING COUGH.

TABLE No. 1—*Showing Deaths by Wards, Sex, Color and Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First																	1																												1							
Second													1																						1										2					
Third																													1						1										1	1	1	
Fourth																																																		
Fifth																																																		
Sixth																																												1					
Seventh																																																		
Eighth																	1																				1								1				1	
Ninth					1																																						1						
Tenth																																																		
Eleventh																																																		
Twelfth																							1																										1	
Thirteenth																																												1			1		
Fourteenth							1							1		1								1															1					3		1	1		
Fifteenth																			1																										1	2		1		
Sixteenth							1							1											1																						2	1		
Seventeenth																					1		1							1																1		2		
Eighteenth		1																			1																1								2		1		
Nineteenth																																																	
Twentieth						1				1				1			1																												3					
Twenty-first										1																										1								1	1		
Twenty-second																					1				1																						2	
Twenty-third																	1	1	1				1						1																1	1	1	2	
Twenty-fourth																	1								1																				2					
Bay View																																																	
Sydenham																																																	
Total		1			1	1		2		2			1	2	2		2	2	2	2		2		3	2	1	1	1			1	2	1	1	1	1	1			1		1		3			9	17	7	13

WHOOPING COUGH.

TABLE No. 2—*Showing Deaths by Ages, Sex, Color and Months, Year* 1911.

AGES.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 month																																1														1				
Between 1 and 3 months										1				1				2		1				2						1		1										1				4				2
Between 3 and 12 months										1				1			1			1				1						1	1		1					1					1			3	6	3	2
Between 1 and 2 years		1			1	1		2		1			1	1			1					2				1		1				1	1				1						1			4	5	2	4
Between 2 and 3 years																		1	1					2	2			1															1			2	1	1	4
Between 3 and 4 years															1																																1	
Between 4 and 5 years																																																
Between 5 and 9 years																																																
Between 10 and 14 years																																																
Between 15 and 19 years																																																
Between 20 and 24 years																																																
Between 25 and 29 years																																																
Between 30 and 34 years																																																
Between 35 and 39 years																																																
Between 40 and 44 years																																																
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Between 50 and 54 years																																																
Between 55 and 59 years																																																
Between 60 and 64 years																																																
Between 65 and 69 years																																																
Between 70 and 74 years																																																
Between 75 and 79 years																																																
Between 80 and 84 years																																																
Between 85 and 89 years																																																
Between 90 and 94 years																																																
Between 95 and 99 years																																																
Total		1			1	1		2		2			1	2	2		2	2	2	2		2			3	2	1	1	1		1	2	1	1	1	1	1	1			1	1		1		3			9	17	7	12

MEASLES.

TABLE No. 1—*Showing Deaths by Wards, Sex, Color and Months, Year* 1911.

WARDS.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First	1	1				1			1				1				1	1																									4	3		
Second					1				1					1			1																											3	1		
Third					1				2				1					1																											4	1		
Fourth														1																													...	1		
Fifth						1					1																															...	1		1
Sixth										1				1																													...	2		
Seventh	1																																									1			
Eighth	1	1							1				1						1																								3	1		
Ninth																																												
Tenth											1		1												1																		1	1		1
Eleventh							1				1																																	2		
Twelfth	1																1																									2		1	
Thirteenth					3	1				1			1	2																												4	4		
Fourteenth											1																																	1	
Fifteenth														1		1			1																									1	1	1
Sixteenth														1	2			1																										2	2	
Seventeenth										1																																		1	
Eighteenth									1	1			1	1			1					1			1		1															1	3		1
Nineteenth													1	1																													2	1		
Twentieth										1																																		1		
Twenty-first									1								1																										2			
Twenty-second									1	1				1																													1	2		
Twenty-third																																												
Twenty-fourth													1					1			1				2	2																	4	3		
Bay View																																												
Sydenham																																												
Total	4	2			5	3	1		8	5	2	3	7	9	2	1	5	4	2		1	1			2	4		1											1		32	28	5	5

MEASLES.

TABLE No. 2—*Showing Deaths by Ages, Sex, Color and Months, Year* 1911.

Ages.	January.				February.				March.				April.				May.				June.				July.				August.				September.				October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 month																										1																								
Between 1 and 3 months		1																																				1									1			
Between 3 and 12 months	1				1	1			1		1	2	1	4		1	2	1	1			1				1																				6	8	2	1
Between 1 and 2 years	2	1			1	1			3	1	1	1	2	1	1		1	3	1		1				2	2																			12	9	3	1
Between 2 and 3 years					1				2					1			1									1																				4	2		
Between 3 and 4 years	1								1	1				1			1																												3	2		
Between 4 and 5 years														1																																	1		
Between 5 and 9 years					1		1		1	2			2		1																														4	2	2	
Between 10 and 14 years													1	1																															1	1		
Between 15 and 19 years										1			1																																	1	1		
Between 20 and 24 years						1																																								1		
Between 25 and 29 years					1																																								1			
Between 30 and 34 years																																																
Between 35 and 39 years																																																
Between 40 and 44 years																																																
Between 45 and 49 years																																																
Between 50 and 54 years																																																
Between 55 and 59 years																																																
Between 60 and 64 years																																																
Between 65 and 69 years																																																
Between 70 and 74 years																																																
Between 75 and 79 years																																																
Between 80 and 84 years																																																
Between 85 and 89 years																																																
Between 90 and 94 years																																																
Between 95 and 99 years																																																
Total	4	2			5	3	1		8	5	2	3	7	9	2	1	5	4	2		1	1			2	4		1											1						32	28	8	3

REPORT

OF THE

QUARANTINE STATION

Report of the Quarantine Station.

BALTIMORE, January 1, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I have the honor to submit the following report of transactions at the Quarantine Station during the year ending December 31, 1911.

It is gratifying to report that the quarantine service at this port continues to be effective, no quarantinable diseases having entered the city by way of infected vessels during the past year. Careful and rigid inspection of all vessels coming from foreign ports is at all times necessary, particularly so with regard to such as come from districts infected with smallpox, yellow fever, bubonic plague and cholera.

The presence of the latter disease in many foreign ports during the past season required bacteriological examinations of the personnel of several vessels in order to determine whether or not "cholera carriers" were on board. I am pleased to report that no suspects were found.

Five hundred and ninety-two steamships and thirteen sailing vessels were boarded and inspected during the year. These vessels carried 19,485 passengers, their crews numbering 20,809, making a total of 40,294 persons examined (see Table No. 1).

It was found necessary to remove but twenty-four of this number to the hospital for treatment, or for observation.

Eleven persons were treated in the hospital and twenty-six placed in the detention house for observation, as follows:

One case smallpox, two measles, one leprosy (over from 1910), and five for observation came from the city.

One case smallpox, one chickenpox, and two for observation came from Baltimore county.

Three cases smallpox, one measles, and nineteen for observation were taken from vessels.

No diseases developed among the suspects placed in the detention house, and there are no patients or suspects at the station at the close of the year (see Table No. 3).

The receipts of the station, coming mainly from fees collected from vessels, and paid over to the City Register, amounted to $12,285.32. The cost of maintenance, salaries and expenses are embodied in the report of the Commissioner of Health (see Table No. 2).

The smallpox hospital, detention house and outbuildings are undergoing general overhauling and repairing under the supervision of the Inspector of Buildings.

The employees of the station have discharged their duties in a faithful and efficient manner, and in conclusion I wish to thank each one of them, as well as my able assistant, Dr. A. D. Driscoll, for the cheerful manner in which they have rendered aid in conducting the business of the station during the past year.

Respectfully submitted,

THOMAS L. RICHARDSON, M. D.,
Quarantine Officer.

TABLE NO. 1.

Number of Vessels Boarded and Inspected at Quarantine Station During the Year Ending December 31, 1911.

Months.	Class of Vessels.				
	Steamships.	Ships.	Barks.	Schooners.	Total.
January	43	.....	1	.....	44
February	42	.....	1	1	44
March	41	.....	1	.....	42
April	44	.....	1	1	46
May	62	.....	2	1	65
June	51	.....	1	3	55
July	57	1	.....	2	60
August	55	.....	.....	.....	55
September	57	1	.....	.....	58
October	52	.....	2	1	55
November	43	.....	1	.....	44
December	45	.....	1	.....	46
Total	592	2	11	9	614

TABLE NO. 2.

Amount of Money Received for Quarantine Fees and Paid to the City Register During the Year Ending December 31, 1911.

Months.	Class of Vessels.					
	Steamships.	Ships.	Barks.	Schooners.	Care of Patients, Fumigation of Vessels, etc.	Total.
January	$955 40	.....	$8 86	.....	.....	$964 26
February	881 37	.....	29 71	2 00	21 00	934 08
March	931 35	.....	36 09	.....	.....	967 44
April	863 66	.....	12 47	8 28	115 07	999 48
May	1,126 51	.....	34 99	3 30	15 00	1,179 80
June	902 74	.....	7 56	18 51	10 00	938 81
July	990 79	14 29	.....	15 02	39 00	1,059 10
August	876 03	.....	.....	7 56	25 00	908 59
September	1,289 43	15 40	.....	.....	10 00	1,314 83
October	1,053 80	.....	45 63	2 00	.....	1,101 43
November	887 93	.....	6 52	.....	.....	894 45
December	1,010 74	.....	12 31	.....	.....	1,023 05
Total	$11,769 75	$29 69	$194 14	$56 67	$235 07	$12,285 32

TABLE NO. 3.

Number of Persons Treated and Suspects Detained at Quarantine Hospital During the Year Ending December 31, 1911.

Diseases.	Remaining in Hospital from 1910.	Received in 1911.	Discharged in 1911.	Remaining in Hospital Dec. 31, 1911	Total.
Smallpox	.....	5	5	.....	5
Leprosy	1	1	2	.....	2
Chickenpox	.....	1	1	.....	1
Measles	.....	3	3	.....	3
Quarantined	.....	26	26	.....	26
Total	1	36	37	.....	37

TABLES OF VITAL STATISTICS

OF BALTIMORE CITY

FOR THE YEAR ENDING DECEMBER 31, 1911

VITAL STATISTICS FOR THE CITY OF BALTIMORE FOR THE YEAR ENDING DECEMBER 31, 1911.

Estimated population (as of July 1, 1911)..... (White, 478,795; colored, 85,750.)		564,545
Marriages reported		5,960
Rate per 1,000 of the population.....		10.56
Births reported—white males	3,919	
Births reported—white females	3,673	
	7,592	
Births reported—colored males	824	
Births reported—colored females	867	
	1,691	
Total births reported.....		9,283
Birth rate per 1,000 of the population, whole		16.44
Birth rate per 1,000 of the population, white		15.86
Birth rate per 1,000 of the population, colored		19.72
Total mortality—white males	4,139	
Total mortality—white females	3,617	
Total mortality—white, sex unknown.....	2	
Total mortality—color unknown, male.....	1	
	7,759	
Total mortality—colored males	1,351	
Total mortality—colored females	1,294	
	2,645	
Total deaths reported.....		10,404
Annual death rate per 1,000 of the population, whole		18.43
Annual death rate per 1,000 of the population, less non-residents		17.54
Annual death rate per 1,000 of the population, white		16.20
Annual death rate per 1,000 of the population, less non-residents		15.36
Annual death rate per 1,000 of the population, colored		30.85
Annual death rate per 1,000 of the population, less non-residents		29.75
Total deaths from typhoid fever		154

Total deaths from measles	77
Total deaths from scarlet fever	44
Total deaths from whooping cough	48
Total deaths from diphtheria and croup	68
Total deaths from influenza (la grippe)	86
Total deaths from dysentery	25
Total deaths from tuberculosis of the lungs	1,165
Total deaths from other forms of tuberculosis	223
Total deaths from cancers	526
Total deaths from anæmia	41
Total deaths from diseases of the heart	985
Total deaths from bronchitis	152
Total deaths from pneumonia	1,114
Total deaths from diarrhoea and enteritis, under two years	568
Total deaths from diarrhoea and enteritis, over two years	83
Total deaths from Bright's disease	860
Total deaths from puerperal hemorrhage	11
Total deaths from puerperal septicæmia	33
Total deaths from puerperal convulsions	17
Total deaths from sunstroke and heat	59
Total deaths from accidents	410
Total deaths from suicides	100
Total deaths from homicides	27
Total deaths of children under five years of age	2,714

Deaths in Public Institutions, etc.

Baltimore City Jail	8
Penitentiary	19
Hospitals and asylums	2,798
Total	2,825
Number of coroners' inquests	1,325
Number of autopsies	52
Number of non-residents dying within city limits, white	406
Number of non-residents dying within city limits, colored	94

ARTHUR D. THOMPSON,
Statistician.

TABLE 1.—*Number of Infectious and Contagious Diseases Reported During Year* 1911.

DISEASES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Smallpox	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Diphtheria	107	118	137	59	42	32	28	52	88	97	151	124	1,035
Pseudo-membranous croup	.....	.....	1	1	.....	.....	.....	.....	1	1	.....	2	6
Croup	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scarlet fever	127	113	133	113	83	72	42	41	64	104	106	120	1,118
Typhoid fever	55	31	35	44	56	34	89	280	241	170	104	62	1,201
Measles	430	599	1,066	613	439	271	82	18	5	8	10	35	3,576
Mumps	73	115	188	118	68	16	1	2	.....	2	2	5	590
Whooping cough	31	23	53	35	35	17	28	24	15	14	23	45	343
Varicella	66	60	51	25	43	20	4	3	11	17	65	130	495
Tuberculosis pulmonalis	143	162	152	147	149	152	119	132	129	147	138	142	1,712
Cholera	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yellow fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	1,032	1,221	1,817	1,155	915	614	393	552	554	560	599	665	10,077

TABLE II—*Number of Deaths According to Ages During the Year* 1911.

AGES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Under 3 months.....	95	94	105	79	87	*80	111	130	94	70	76	97	1,118
Between 3 and 12 months.....	48	44	60	62	65	45	169	124	88	62	33	40	840
Between 1 and 2 years.....	40	31	40	42	45	27	57	39	31	20	30	23	425
Between 2 and 3 years.....	15	11	20	18	15	20	14	7	11	10	9	11	161
Between 3 and 4 years.....	10	8	12	8	8	9	5	6	8	7	4	9	94
Between 4 and 5 years.....	14	8	9	9	6	7	3	5	2	1	7	5	76
Total under 5 years.....	222	196	246	218	226	188	359	311	234	170	159	185	2,714
Between 5 and 9 years.....	20	13	23	34	14	18	10	14	11	20	14	14	205
Between 10 and 14 years.....	8	16	13	17	17	6	12	17	7	9	8	10	140
Between 15 and 19 years.....	26	20	17	29	21	28	18	23	24	19	21	16	262
Between 20 and 24 years.....	28	31	30	37	39	31	20	36	29	32	34	32	379
Between 25 and 29 years.....	45	44	40	46	44	44	47	28	40	39	46	38	501
Between 30 and 34 years.....	33	46	49	42	43	31	27	31	32	37	48	39	458
Between 35 and 39 years.....	36	49	43	57	34	31	33	32	34	40	44	45	475
Between 40 and 44 years.....	50	42	56	35	49	41	38	39	43	45	41	50	529
Between 45 and 49 years.....	61	41	54	40	47	41	41	43	39	36	42	56	538
Between 50 and 54 years.....	56	52	83	73	59	50	37	50	49	60	68	59	696
Between 55 and 59 years.....	68	51	56	45	54	40	48	38	20	50	45	65	580
Between 60 and 64 years.....	61	51	66	58	37	41	48	45	51	52	57	48	615
Between 65 and 69 years.....	69	65	58	60	53	40	50	37	37	57	45	63	634
Between 70 and 74 years.....	78	55	61	51	58	35	45	47	41	46	49	50	616

Between 75 and 79 years.....	57	44	41	41	53	26	41	30	28	35	37	38	471
Between 80 and 84 years.....	48	32	38	26	35	18	32	24	21	34	24	24	356
Between 85 and 89 years.....	18	14	9	18	14	12	16	4	9	13	13	16	156
Between 90 and 94 years.....	6	8	5	3	4	5	6	4	4	3	4	5	57
Between 95 and 99 years.....	2	3	.....	2	1	1	1	2	2	.....	1	1	16
Between 100 and 104 years.....	1	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	4
Between 105 and 109 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 110 years.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	2
Unknown age.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	993	871	989	932	902	728	929	855	752	798	801	854	10,404

*One sex unknown.

TABLE III—*Number of Deaths According to Ages, Sex and Color During the Year 1911—Whites.*

AGES.	Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Under 3 months	37	29	36	35	39	34	34	30	42	28	*28	29	44	38	47	43	*48	25	31	22	29	31	39	32	830
Between 3 and 12 months	20	14	16	16	19	14	20	24	28	17	9	20	56	62	46	49	31	41	25	22	10	8	17	6	590
Between 1 and 2 years	18	12	14	10	10	14	17	13	20	14	7	9	27	16	17	13	15	11	5	8	6	14	10	8	308
Between 2 and 3 years	6	6	4	2	11	7	8	4	6	3	8	4	7	3	4	2	8	1	3	4	3	3	5	3	115
Between 3 and 4 years	2	5	5	2	7	3	4	2	4	2	1	4	2	2	3	1	4	.....	3	2	2	1	2	4	67
Between 4 and 5 years	6	5	3	4	3	1	3	2	2	2	3	4	3	.....	2	2	1	.....	.....	.....	4	2	2	.....	54
Total under 5 years	89	71	78	69	89	73	86	75	102	66	56	70	139	121	119	110	107	78	67	58	54	59	75	53	1,904
Between 5 and 9 years	6	9	4	3	10	8	16	8	5	4	7	6	6	3	6	5	3	5	9	5	7	2	7	6	150
Between 10 and 14 years	4	1	7	2	3	6	5	6	6	5	1	2	5	1	6	5	5	.....	5	3	4	4	4	4	94
Between 15 and 19 years	8	8	7	9	5	8	5	11	7	4	5	9	3	7	8	5	11	6	3	9	9	6	3	4	160
Between 20 and 24 years	9	7	12	8	12	8	11	12	6	16	8	11	8	7	11	7	13	2	12	5	10	13	10	10	228
Between 25 and 29 years	8	13	15	13	14	8	18	12	10	15	14	11	12	9	7	9	17	11	19	8	18	8	17	6	292
Between 30 and 34 years	14	11	16	12	19	16	17	14	11	18	13	7	9	9	10	9	14	4	20	9	23	12	19	10	316
Between 35 and 39 years	15	9	19	11	14	15	21	14	19	5	9	10	9	12	13	6	14	6	14	11	19	9	16	14	304
Between 40 and 44 years	20	16	15	10	20	20	8	14	21	13	15	8	16	10	17	11	18	13	15	14	9	15	24	10	352
Between 45 and 49 years	21	28	18	14	22	17	23	8	28	10	19	7	16	13	19	9	18	9	15	11	9	16	26	17	393
Between 50 and 54 years	26	14	21	14	33	24	28	21	24	15	21	15	14	13	20	19	†22	13	28	19	30	25	29	17	505
Between 55 and 59 years	27	32	25	19	20	21	14	17	23	13	17	14	22	18	21	10	8	9	25	12	17	14	30	22	450
Between 60 and 64 years	28	22	23	18	31	26	25	27	22	10	19	9	19	21	18	18	24	17	24	21	30	16	23	16	507
Between 65 and 69 years	26	35	26	27	26	24	26	30	24	20	21	14	22	26	16	18	19	16	28	24	16	22	28	26	560
Between 70 and 74 years	33	33	23	25	27	24	21	26	21	21	17	16	24	16	23	17	19	18	21	21	15	22	20	27	530
Between 75 and 79 years	25	26	23	19	14	22	15	20	21	26	8	14	19	20	11	17	6	20	14	17	13	18	12	21	421
Between 80 and 84 years	16	29	8	21	13	21	11	11	11	22	12	5	13	18	14	10	11	10	11	18	10	12	8	13	328
Between 85 and 89 years	6	8	8	6	2	6	8	10	6	8	5	4	8	7	1	3	4	3	7	6	4	7	9	4	140
Between 90 and 94 years	2	4	4	3	1	3	.....	3	.....	4	.....	5	2	2	1	1	1	2	.....	3	1	3	.....	4	49
Between 95 and 99 years	2	.....	.....	2	.....	.....	1	1	.....	.....	.....	1	.....	1	.....	2	.....	1	.....	.....	.....	1	.....	1	13
Between 100 and 104 years	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Between 105 and 109 years	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 110 years	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Unknown age	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	385	377	352	305	375	351	359	340	367	295	267	238	366	334	341	291	334	243	337	274	299	284	360	285	7,759

*One each, sex unknown.

†One color unknown.

TABLE IV—*Number of Deaths According to Ages, Sex and Color During the Year 1911—Colored.*

AGES.	Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Under 3 months	12	17	13	10	16	16	9	6	8	9	8	15	16	13	18	22	11	10	7	10	6	10	15	11	288
Between 3 and 12 months	9	5	4	8	18	9	14	4	14	6	8	8	28	23	13	16	10	6	12	3	6	9	10	7	250
Between 1 and 2 years	5	5	4	3	8	8	7	5	7	4	5	6	8	6	5	4	3	2	4	3	6	4	1	4	117
Between 2 and 3 years	1	2	1	4	1	1	5	1	3	3	2	6	1	3	.....	1	.....	2	.....	3	2	1	1	2	46
Between 3 and 4 years	3	.....	1	.....	1	1	1	1	.....	2	2	2	.....	1	1	1	2	2	1	1	.....	1	.....	3	27
Between 4 and 5 years	2	1	1	.....	3	2	3	1	.....	2	.....	.....	.....	.....	1	.....	1	.....	.....	1	.....	1	1	2	22
Total under 5 years	32	30	24	25	47	37	39	18	32	26	25	37	53	46	38	44	27	22	24	21	20	26	28	29	750
Between 5 and 9 years	3	2	4	2	1	4	5	5	3	2	2	3	1	.....	2	1	2	1	4	2	2	3	.....	1	55
Between 10 and 14 years	2	1	4	3	.....	4	3	3	6	.....	1	2	2	4	1	5	1	1	.....	1	.....	.....	2	.....	46
Between 15 and 19 years	5	5	1	3	1	3	4	9	4	6	7	7	4	4	4	6	3	4	3	4	3	3	2	7	102
Between 20 and 24 years	4	8	5	6	5	5	9	5	7	10	9	3	2	3	7	11	7	7	10	5	9	2	4	8	151
Between 25 and 29 years	13	11	4	12	9	9	7	9	11	8	11	8	12	14	9	3	9	3	7	5	13	7	8	7	209
Between 30 and 34 years	3	5	5	13	9	5	5	6	5	9	8	3	7	2	8	4	7	7	4	4	10	3	2	8	142
Between 35 and 39 years	6	6	12	4	6	8	13	9	4	6	8	4	5	7	6	7	7	7	7	8	9	7	9	6	171
Between 40 and 44 years	7	7	8	9	11	5	4	9	7	8	8	10	9	3	7	4	7	5	9	7	7	10	6	10	177
Between 45 and 49 years	8	4	5	4	7	8	5	4	6	3	12	3	4	8	6	9	4	5	5	5	10	7	6	7	145
Between 50 and 54 years	8	8	10	7	10	16	12	12	11	9	7	7	7	3	6	5	5	9	8	5	8	5	5	8	191
Between 55 and 59 years	2	7	3	4	9	6	9	5	11	7	7	2	6	2	2	5	.....	3	5	8	8	6	5	8	130
Between 60 and 64 years	5	6	6	4	4	5	3	3	.....	5	6	7	7	1	4	5	5	5	4	3	4	7	4	5	108
Between 65 and 69 years	6	2	5	7	5	3	2	2	8	1	4	1	1	1	.....	3	1	1	2	3	2	5	4	5	74
Between 70 and 74 years	6	6	5	2	4	6	2	2	6	10	1	1	3	2	3	4	4	.....	2	2	8	4	3	.....	86
Between 75 and 79 years	3	3	.....	2	2	3	1	5	2	4	2	2	.....	2	.....	2	1	1	3	1	1	5	3	2	50
Between 80 and 84 years	1	2	1	2	1	3	3	1	2	.....	.....	1	1	.....	.....	.....	.....	.....	1	4	2	.....	1	2	28
Between 85 and 89 years	2	2	.....	.....	1	.....	.....	.....	.....	.....	2	1	1	.....	.....	.....	2	.....	.....	.....	1	1	1	2	16
Between 90 and 94 years	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....	2	.....	1	.....	.....	.....	.....	.....	1	8
Between 95 and 99 years	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	3
Between 100 and 104 years	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2
Between 105 and 109 years	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 110 years	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Unknown age	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	116	115	103	111	132	131	126	107	126	114	120	103	125	104	103	120	92	83	98	89	117	101	93	116	2,645

TABLE V—*Nativity of the Decedents for the Year* 1911.

NATIVITY.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
United States—White males	291	265	287	283	270	194	276	261	270	247	230	280	3,154
United States—White females	273	219	277	258	212	191	272	233	190	200	222	218	2,765
United States—White, sex unknown	....	....	....	....	....	1	....	....	1	....	....	....	2
United States—Colored males	113	99	124	119	120	113	122	102	88	90	108	89	1,287
United States—Colored females	112	103	127	104	114	100	99	119	81	89	99	112	1,259
Foreign—White males	89	81	80	73	89	65	83	72	58	84	66	74	914
Foreign—White females	100	85	72	77	81	43	55	53	52	72	62	66	818
Foreign—Colored males	1	1	1	1	....	2	1	....	....	1	2	1	11
Foreign—Colored females	1	1	....	....	....	1	....	1	....	....	....	....	4
Unknown—White males	5	6	8	3	8	7	7	8	*5	6	3	6	72
Unknown—White females	4	1	2	5	2	4	7	5	1	2	....	1	34
Unknown—Colored males	2	3	7	6	6	5	2	1	4	7	7	3	53
Unknown—Colored females	2	7	4	3	....	2	5	....	2	....	2	4	31
Total	993	871	989	932	902	728	929	855	752	798	801	854	10,404

*One color unknown.

Marriages for the Year 1911.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Marriages	447	403	324	522	419	726	381	410	569	534	624	601	5,960

TABLE VI—*Number of Births Reported During the Year* 1911.

SEX AND COLOR.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White males	326	270	349	295	288	373	319	370	345	321	322	341	3,919
White females	321	317	314	264	283	311	324	347	276	285	310	321	3,673
Colored males	63	68	63	51	42	110	77	47	82	61	82	78	824
Colored females	65	80	59	69	54	108	60	73	82	87	68	62	867
Total	775	735	785	679	667	902	780	837	785	754	782	802	9,283
Illegitimates.													
White males	10	10	22	13	13	29	19	10	16	6	13	8	169
White females	10	12	17	17	22	31	12	14	7	10	13	12	177
Colored males	17	12	13	16	13	40	19	11	24	11	23	16	215
Colored females	15	13	10	20	17	29	10	15	19	20	14	13	195
Total	52	47	62	66	65	129	60	50	66	47	63	49	756
Still Births.													
White males	29	27	22	19	29	16	14	21	13	23	30	13	256
White females	17	20	19	8	16	20	18	12	20	18	10	10	188
Colored males	17	14	19	12	16	8	18	13	6	11	8	14	156
Colored females	8	11	9	6	10	10	13	14	9	8	9	5	112
Total	71	72	69	45	71	54	63	60	48	60	57	42	712

TABLE VII. *Number of Deaths According to Wards During the Year* 1911.

WARDS.	Jan.	Feb.	Mar.	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
First	31	28	26	30	35	30	43	37	35	33	24	25	377
Second	30	35	30	32	33	17	47	40	35	30	21	28	378
Third	32	38	30	27	23	12	24	34	28	24	26	30	328
Fourth	45	37	54	41	54	48	63	50	28	33	43	53	549
Fifth	41	26	24	36	37	21	27	29	24	23	17	28	333
Sixth	44	30	36	36	25	24	38	33	26	31	35	40	398
Seventh	53	40	49	57	42	33	45	34	42	45	36	48	524
Eighth	49	29	47	31	29	28	39	29	22	21	32	36	392
Ninth	36	32	23	39	32	28	33	24	21	32	35	34	369
Tenth	27	43	38	33	36	26	35	36	23	34	35	30	396
Eleventh	52	40	47	34	39	30	28	26	33	37	29	29	424
Twelfth	42	47	41	40	39	25	33	30	25	41	51	30	444
Thirteenth	27	33	40	23	23	23	22	22	26	28	15	27	309
Fourteenth	57	47	77	62	69	65	79	51	51	35	43	59	695
Fifteenth	40	41	53	44	39	34	49	35	29	38	36	46	484
Sixteenth	33	37	37	37	37	25	30	33	30	38	40	23	410
Seventeenth	46	35	38	44	41	39	29	38	26	26	28	36	426
Eighteenth	33	31	45	42	41	25	32	37	25	35	30	33	409
Nineteenth	52	44	35	39	23	37	29	39	25	31	36	37	427
Twentieth	37	36	32	31	38	18	29	32	39	18	28	33	371
Twenty-first	30	18	38	26	30	20	31	32	27	32	34	38	356
Twenty-second	44	30	23	36	31	29	38	27	24	25	32	27	366
Twenty-third	34	24	34	30	34	30	24	28	24	25	18	18	323
Twenty-fourth	31	23	30	32	24	24	42	38	42	38	24	17	365
Bay View Asylum	37	47	62	50	48	37	40	41	42	45	53	49	551
Total	993	871	989	932	902	728	929	855	752	798	801	854	10,404

TABLE VIII—*Number of Deaths in Hospitals, Public Institutions, Inquests, Etc., During the Year* 1911.

HOSPITALS, INSTITUTIONS, ETC.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Hospitals—													
Resident, white	73	51	89	77	97	65	85	86	84	73	83	79	942
Resident, colored	30	25	29	26	29	27	37	39	25	18	28	38	351
Non-resident, white	40	25	28	34	34	28	33	27	21	37	39	29	375
Non-resident, colored	5	4	6	9	6	8	6	14	7	8	2	5	80
Other Institutions, Asylums, Etc.													
Resident, white	29	33	36	36	47	30	44	33	23	17	26	27	381
Resident, colored	8	3	10	8	4	8	8	9	1	2	3	5	69
Non-resident, white	2	5	.....	2	2	1	3	2	*3	2	4	4	30
Non-resident, colored	1	.....	.....	2	3	.....	.....	3	1	.....	1	.....	11
Jail—													
White residents	1	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	3
White non-residents	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Colored residents	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	2	1	4
Colored non-residents	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Penitentiary—													
White residents	1	2	1	1	.....	.....	.....	.....	.....	2	.....	3	10
White non-residents	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Colored residents	.....	1	.....	1	.....	1	1	.....	.....	1	1	.....	6
Colored non-residents	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	2
Bay View Asylum	37	47	62	50	48	37	40	41	42	45	53	49	551
Sydenham Hospital	1	.....	.....	2	2	1	.....	1	.....	.....	.....	1	8
Total	228	196	261	248	273	207	257	257	208	205	243	242	2,825
Coroners' inquests	110	108	114	116	118	110	113	110	107	84	116	119	1,325
Autopsies	7	.....	8	1	4	4	3	7	3	4	6	5	52

*One color unknown.

TABLE IX—*Number of Deaths According to Occupations During the Year* 1911.

OCCUPATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Artists and Designers	.....	2	.....	2	.....	4	.....	.....	2	.....	2	.....	12
Bakers	4	3	4	.....	2	1	.....	.....	4	2	1	3	24
Barbers and Wigmakers	.....	7	6	3	4	1	1	2	.....	2	2	1	29
Blacksmiths and Wheelwrights	3	1	7	3	6	4	4	1	3	6	4	4	46
Bookkeepers and Clerks	9	16	23	18	14	15	11	14	17	15	15	19	186
Brassfinishers	3	1	.....	.....	.....	.....	2	.....	2	.....	.....	.....	8
Bricklayers and Masons	.....	4	3	.....	6	4	1	4	2	3	.....	3	30
Butchers	9	5	2	3	4	1	4	7	3	5	2	1	46
Cabinetmakers	3	3	.....	3	3	1	2	3	2	4	.....	1	25
Carpenters and Builders	20	12	6	10	8	12	12	13	13	4	10	13	133
Cigarmakers and Dealers	2	2	2	2	3	1	3	4	.....	6	3	4	32
Clergymen	2	2	3	3	2	3	1	.....	3	2	3	2	26
Confectioners and Fruiterers	2	2	3	4	3	.....	1	1	1	3	1	.....	21
Cooks	12	13	6	10	12	8	5	6	6	11	9	8	106
Diemakers	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	2
Drivers and Hostlers	9	16	20	11	9	7	21	8	11	9	12	15	148
Druggists and Chemists	2	5	.....	.....	.....	3	3	.....	2	2	.....	2	19
Dyers and Scourers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Electrical Workers	1	2	4	.....	2	.....	1	.....	.....	2	3	3	18
Engineers and Machinists	6	12	7	9	5	11	7	4	13	6	3	8	91
Firemen	1	3	1	.....	1	1	1	.....	.....	.....	.....	1	9
Gasfitters	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Grocers	4	6	2	8	3	3	4	2	.....	7	1	3	43
Hodcarriers	2	1	.....	1	.....	1	2	.....	.....	.....	.....	.....	7
Horseshoers	.....	.....	1	.....	.....	.....	2	.....	1	1	.....	.....	5
Housewives	208	160	194	168	168	111	144	126	122	142	164	180	1,887
Jewelers and Watchmakers	2	3	.....	.....	.....	.....	2	2	2	2	.....	1	14

TABLE IX (Continued)—*Number of Deaths According to Occupations During the Year* 1911.

OCCUPATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug	Sept.	Oct.	Nov.	Dec.	Total.
Laborers	66	68	78	75	81	68	53	62	60	66	78	80	835
Laundrymen and Laundresses	11	15	13	18	15	9	9	12	7	5	10	9	133
Lawyers	5	1	3	1	4	.....	1	.....	1	3	2	2	23
Liquor Dealers and Barkeepers	5	7	7	5	6	5	3	9	4	4	6	5	66
Merchants	6	7	10	4	9	6	8	8	8	4	8	9	87
Mill Operatives	2	2	2	.....	.....	1	2	1	1	3	.....	.....	14
Moulders	2	2	3	1	.....	.....	1	.....	2	1	1	1	14
Nurses	1	4	1	3	.....	1	.....	.....	2	1	3	.....	16
Oyster Shuckers	.....	1	1	.....	.....	.....	.....	.....	.....	.....	3	1	6
Painters and Varnishers	4	9	2	4	7	3	7	7	6	4	4	4	61
Paperhangers and Decorators	.....	1	1	5	.....	1	.....	.....	1	.....	2	3	14
Physicians and Dentists	6	2	3	6	4	1	.....	.....	.....	3	3	6	34
Planing Mill Workers	1	1	4	1	2	3	3	1	.....	1	2	1	20
Plasterers and Lathers	.....	4	.....	.....	.....	1	.....	2	.....	4	1	1	13
Plumbers and Steamfitters	3	1	1	5	2	1	3	1	1	3	1	3	25
Policemen and Watchmen	2	3	5	3	8	5	5	3	5	1	3	5	48
Printers and Bookbinders	.....	1	1	2	1	2	2	5	5	3	1	2	25
Religieuse	.....	2	1	.....	1	.....	.....	.....	.....	.....	.....	2	6
Salesmen and Salesladies	7	4	1	4	7	4	8	3	3	4	7	8	60
School Teachers	2	4	4	5	3	2	1	6	1	4	2	2	36
Seamstresses	9	3	6	6	7	7	3	3	2	5	5	3	59
Servants	38	15	22	28	24	28	15	27	16	32	18	25	288
Shoemakers and Harnessmakers	8	5	9	4	10	2	4	3	2	6	6	7	66
Solicitors and Collectors	3	2	3	1	1	1	2	3	.....	3	1	2	22
Steam Railway Employes	4	6	11	8	4	5	7	6	4	6	4	5	70
Stevedores	7	5	1	5	3	5	6	3	3	3	5	2	48
Stonecutters and Marbleworkers	3	.....	2	2	.....	1	.....	3	2	.....	2	1	16

Street Pavers	.....	.....	.....	.....	1	1	.....	.....	1	.....	.....	1	4
Street Railways Employes	2	.....	6	1	1	1	.....	3	1	3	2	.....	20
Structural Iron Workers	1	1	.....	.....	.....	.....	.....	.....	1	1	3	.....	7
Tailors and Clothiers	15	10	8	12	9	6	6	5	7	6	5	10	99
Tilesetters and Cementers	.....	.....	.....	.....	1	.....	.....	1	.....	1	.....	1	4
Tin and Sheet-iron Workers	3	8	.....	2	2	3	1	2	5	.....	5	3	34
Upholsterers	2	1	.....	1	1	2	.....	.....	.....	.....	.....	.....	7
All others	74	50	67	61	46	44	39	41	34	61	58	40	615
Not specified	397	345	419	421	387	317	506	436	357	323	314	338	4,540
Total	993	871	989	932	902	728	929	855	752	798	801	854	10,404

TABLE XII—*Number of Deaths from All Causes During the Year* 1911.

DISEASES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
I—General Diseases.													
1. Typhoid fever	11	3	5	8	7	8	4	22	31	28	19	8	154
2. Typhus fever	....	....	....	....	....	....	....	....	....	....	....	....	.....
3. Relapsing fever	....	....	....	....	....	....	....	....	....	....	....	....	.....
4. Malaria	1	....	....	....	....	....	....	....	2	1	....	....	4
5. Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	.....
6. Measles	6	9	19	19	12	2	8	....	....	....	2	....	77
7. Scarlet fever	6	7	8	4	6	3	....	....	3	1	2	4	44
8. Whooping cough	1	4	3	6	8	5	5	3	5	2	3	3	48
9. Diphtheria and croup	6	10	7	1	3	7	2	2	7	6	7	10	68
10. Influenza	24	26	11	13	5	1	....	....	....	4	....	2	86
11. Miliary fever	....	....	....	....	....	....	....	....	....	....	....	....	.....
12. Asiatic cholera	....	....	....	....	....	....	....	....	....	....	....	....	.....
13. Cholera nostras	....	....	....	....	....	....	....	2	....	1	....	....	3
14. Dysentery	1	2	....	2	1	2	5	8	1	1	2	....	25
15. Plague	....	....	....	....	....	....	....	....	....	....	....	....	.....
16. Yellow fever	....	....	....	....	....	....	....	....	....	....	....	....	.....
17. Leprosy	....	....	....	....	....	....	....	....	....	....	....	....	.....
18. Erysipelas	5	3	6	1	5	1	1	1	1	1	1	1	27
19. Other epidemic diseases	*2	....	....	....	....	....	....	....	....	....	....	....	*2
20. Purulent infection and septichaemia	4	2	1	5	....	2	4	4	1	1	....	2	26
21. Glanders	....	....	....	....	....	....	....	....	....	....	....	....	.....
22. Anthrax	....	....	....	....	....	....	....	....	....	....	....	....	.....

*Mumps, 1; varicella, 1.

TABLE XII (Continued)—*Number of Deaths from All Causes During the Year* 1911.

DISEASES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
23. Rabies	....	....	....	....	....	....	1	....	....	....	....	1	2
24. Tetanus	1	1	....	2	2	3	2	3	2	3	2	2	23
25. Mycoses	....	....	....	....	....	....	....	....	....	....	....	....	.....
26. Pellagra	....	....	1	....	....	....	1	....	....	....	1	....	3
27. Beriberi	....	....	....	....	....	....	....	....	....	....	....	....	.....
28. Tuberculosis of the lungs	97	114	109	112	109	105	82	76	80	91	92	98	1,165
29. Acute miliary tuberculosis	1	2	2	2	3	4	1	2	....	1	....	3	21
30. Tuberculous meningitis	14	7	10	4	11	6	7	8	6	5	5	4	87
31. Abdominal tuberculosis	4	5	6	2	7	7	2	10	2	5	1	5	56
32. Pott's disease	3	....	....	1	1	2	....	....	2	1	1	1	12
33. White swellings	1	....	2	....	....	....	....	....	....	....	....	....	3
34. Tuberculosis of other organs	....	1	3	2	3	2	....	5	1	2	1	1	21
35. Disseminated tuberculosis	1	....	3	1	2	3	5	2	1	....	....	5	23
36. Rickets	....	....	2	....	1	....	....	2	....	....	....	....	5
37. Syphilis	8	7	11	10	8	3	8	11	5	8	8	12	99
38. Gonococcus infection	....	1	....	....	....	1	....	....	1	....	....	....	3
Cancers and Other Malignant Tumors.													
39. Of the buccal cavity	3	4	....	2	1	1	....	2	7	1	1	4	26
40. Of the stomach and liver	18	16	18	18	17	17	16	20	13	21	16	17	207
41. Of the peritonaeum, intestines and rectum	7	9	6	4	4	6	7	5	1	5	3	4	61
42. Of the female genital organs	7	8	6	2	9	3	9	8	6	4	4	6	72
43. Of the breast	5	3	7	3	5	2	5	4	4	7	1	4	50

41. Of the skin	1	2	2	1	1	....	2	2	2	....	....	2	14
45. Of other organs and of organs not specified.	7	5	6	10	5	6	8	9	8	15	12	5	96
46. Other tumors (tumors of the female genital organs excepted)	1	1	2	2	1	....	1	1	3	1	....	....	13
47. Acute articular rheumatism	2	5	8	4	6	6	1	6	....	6	4	2	50
48. Chronic rheumatism and gout	1	4	2	....	2	1	....	1	1	1	....	1	14
49. Scurvy	1	....	....	....	....	....	....	....	....	....	....	....	1
50. Diabetes	15	10	8	11	4	8	8	7	6	10	4	7	98
51. Exophthalmic goitre	....	1	....	2	....	....	....	1	....	....	....	2	6
52. Addison's disease	....	....	....	....	....	....	....	....	....	1	....	1	2
53. Leuchaemia	....	2	2	1	....	1	1	....	1	....	1	....	9
54. Anaemia, chlorosis	2	5	3	4	4	3	2	4	3	3	3	5	41
55. Other general diseases	3	....	1	1	1	....	2	3	1	1	....	....	14
56. Alcoholism, acute or chronic	3	1	5	2	1	6	5	2	4	2	7	8	46
57. Chronic lead poisoning	....	....	1	....	....	....	....	....	....	....	1	....	2
58. Other chronic occupation poisoning	....	....	....	1	....	....	....	....	....	....	....	....	1
59. Other chronic poisonings	....	....	....	....	....	1	....	....	....	....	....	....	1
II—*Diseases of the Nervous System and of the Organs of Special Sense.*													
60. Encephalitis	....	....	1	....	....	....	1	....	....	....	....	....	2
61. Simple meningitis	7	4	11	4	10	20	9	9	8	5	9	5	101
62. Locomotor ataxia	2	....	2	....	....	1	2	2	1	1	2	1	14
63. Other diseases of the spinal cord	3	3	4	1	2	5	3	4	3	5	2	1	36
64. Cerebral haemorrhage, apoplexy	34	25	43	34	39	23	29	36	25	34	36	40	398
65. Softening of the brain	4	....	2	3	....	1	2	1	1	2	....	2	18
66. Paralysis without specified cause	10	13	10	5	9	9	6	11	9	9	12	5	108
67. General paralysis of the insane	3	2	....	3	2	2	4	2	....	4	4	3	29
68. Other forms of mental alienation	....	....	....	....	....	1	....	....	1	1	....	....	3
69. Epilepsy	1	....	3	4	....	1	5	1	1	1	1	1	19
70. Convulsions (nonpuerperal)	....	....	....	....	....	....	....	....	....	1	....	....	1
71. Convulsions of infants	5	7	7	5	4	3	6	5	2	8	4	6	62

TABLE XII (Continued)—*Number of Deaths from All Causes During the Year* 1911.

DISEASES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
72. Chorea	....	....	....	....	....	....	....	....	1	....	....	....	1
73. Neuralgia and neuritis	....	1	2	....	....	....	....	....	1	....	1	1	6
74. Other diseases of the nervous system	1	3	4	4	5	5	1	4	5	2	3	4	41
75. Diseases of the eyes and their annexa	1	....	....	....	....	....	....	....	....	....	....	....	1
76. Diseases of the ears	3	2	1	2	1	1	2	2	1	1	1	....	17
III—*Diseases of the Circulatory System.*													
77. Pericarditis	....	....	1	1	....	....	....	....	....	....	....	....	2
78. Acute endocarditis	10	6	3	11	1	2	3	3	....	3	5	7	54
79. Organic diseases of the heart	102	73	85	72	87	71	59	43	53	76	65	85	871
80. Angina pectoris	6	6	6	9	6	4	2	1	2	4	5	7	58
81. Diseases of the arteries, atheroma, aneurysm, etc.	14	15	17	21	17	18	16	16	14	23	20	16	207
82. Embolism and thrombosis	1	5	4	3	2	....	1	....	1	2	2	6	27
83. Diseases of veins (varices, haemorrhoids, phlebitis, etc.)	....	1	....	....	....	1	1	....	....	....	....	....	3
84. Diseases of the lymphatic system (lymphangitis, etc.)	....	....	....	....	1	1	....	1	....	....	....	....	3
85. Haemorrhage; other diseases of the circulatory system	....	1	....	....	....	2	....	....	1	....	....	1	5

IV—*Diseases of the Respiratory System.*													
86. Diseases of the nasal fossae	1	....	....	....	....	....	....	....	....	....	....	....	1
87. Diseases of the larynx	....	....	....	2	....	....	1	....	....	....	....	....	3
88. Diseases of the thyreoid body	....	1	1	....	....	....	....	....	....	1	1	....	4
89. Acute bronchitis	22	10	7	9	5	8	1	4	3	3	5	7	84
90. Chronic bronchitis	8	8	7	5	10	5	7	1	1	4	5	7	68
91. Broncho-pneumonia	52	47	59	60	39	22	15	19	12	18	28	41	412
92. Pneumonia	120	60	97	91	74	29	22	18	24	44	51	72	702
93. Pleurisy	2	4	3	5	4	1	1	4	1	1	5	2	33
94. Pulmonary congestion, pulmonary apoplexy	4	3	4	5	3	....	1	2	1	2	1	3	29
95. Gangrene of the lung	1	....	....	....	....	....	....	....	....	....	....	....	1
96. Asthma	3	1	3	4	2	4	....	3	4	2	1	1	28
97. Pulmonary emphysema	....	....	....	....	....	....	....	....	....	....	....	....	.....
98. Other diseases of the respiratory system, tuberculosis excepted	....	7	4	1	1	2	....	1	2	....	1	1	20
V—*Diseases of the Digestive System.*													
99. Diseases of the mouth and annexa	....	....	....	....	2	....	1	....	....	1	1	....	5
100. Diseases of the pharynx	2	1	2	1	1	1	1	2	....	....	1	....	12
101. Diseases of the oesophagus	....	....	....	....	2	....	1	....	....	....	....	....	3
102. Ulcer of the stomach	2	2	2	1	2	1	1	....	1	1	1	1	15
103. Other diseases of the stomach, cancer excepted	10	8	7	14	10	8	4	6	14	12	13	16	122
104. Diarrhoea and enteritis (under 2 years)	16	11	15	9	32	26	199	125	79	37	15	4	568
105. Diarrhoea and enteritis (2 years and over)	5	3	3	1	3	8	17	12	10	7	6	8	83
106. Ankylostomiasis	....	....	....	....	....	....	....	....	....	....	....	....	.....
107. Intestinal parasites	....	....	....	....	....	....	....	....	....	....	....	....	.....
108. Appendicitis and typhlitis	6	2	6	9	3	1	12	12	7	9	7	4	78
109. Hernias, intestinal obstructions	8	4	11	8	7	5	4	5	12	7	2	10	83
110. Other diseases of the intestines	2	6	....	3	3	....	1	3	1	4	....	2	25
111. Acute yellow atrophy of the liver	....	....	....	....	....	1	....	....	....	1	....	....	2

TABLE XII (Continued)—*Number of Deaths from All Causes During the Year* 1911.

DISEASES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
112. Hydatid tumor of the liver	....	....	....	....	....	....	....	....	....	....	....	....	.....
113. Cirrhosis of the liver	13	11	8	7	7	5	5	7	8	3	11	13	98
114. Biliary calculi	1	2	3	1	3	1	2	3	....	3	4	2	25
115. Other diseases of the liver	3	2	2	3	4	4	3	6	....	4	5	4	40
116. Diseases of the spleen	....	....	1	....	....	....	....	....	....	....	....	....	1
117. Simple peritonitis (nonpuerperal)	1	1	....	2	....	....	....	2	1	....	....	1	8
118. Other diseases of the digestive system, cancer and tuberculosis excepted	....	....	1	....	....	1	....	....	....	1	....	....	3
VI—*Nonvenereal Diseases of the Genito-Urinary System and Annexa.*													
119. Acute nephritis	6	4	12	12	13	7	8	8	11	13	14	8	116
120. Bright's disease	78	77	79	82	82	52	58	57	57	64	92	82	860
121. Chyluria	....	....	....	....	....	....	....	....	....	....	....	....	.....
122. Other diseases of the kidneys and annexa	5	1	....	1	2	2	....	....	2	1	2	....	16
123. Calculi of the urinary passages	....	....	....	....	1	1	....	....	....	....	....	....	2
124. Diseases of the bladder	....	2	....	2	1	1	1	2	2	1	2	2	16
125. Other diseases of the urethra, urinary abscess, etc	....	....	....	....	3	....	....	1	....	1	1	....	6
126. Diseases of the prostate	3	3	1	....	2	3	2	3	1	1	1	1	21
127. Nonvenereal diseases of the male genital organs	....	....	....	....	....	....	....	....	....	....	....	....	.....
128. Uterine haemorrhage (non-puerperal)	1	....	....	....	1	....	....	....	....	....	....	....	2

129. Uterine tumor (noncancerous)	1	....	2	1	2	1	....	2	1	1	....	1	12
130. Other diseases of the uterus	....	1	....	....	....	....	1	1	....	2	3	1	9
131. Cysts and other tumors of the ovary	....	....	....	1	....	1	....	....	1	....	....	....	3
132. Salpingitis and other diseases of the female genitals	2	2	2	1	2	....	1	3	2	1	....	....	16
133. Nonpuerperal diseases of the breast, cancer excepted	....	....	....	....	....	....	....	....	....	....	....	....	.....
VII—*The Puerperal State.*													
134. Accidents of pregnancy	1	1	1	1	1	1	3	1	....	....	1	3	14
135. Puerperal haemorrhage	1	4	....	1	1	1	....	1	1	....	....	1	11
136. Other accidents of labor	2	1	1	....	1	....	....	....	....	2	1	1	9
137. Puerperal septichaemia	....	4	2	3	3	1	1	6	2	4	5	2	33
138. Puerperal albuminuria and convulsions	3	1	2	1	1	....	4	....	2	3	....	....	17
139. Puerperal phlegmasia, alba dolens, embolus, sudden death	....	....	....	....	1	1	....	....	1	....	....	....	3
140. Following childbirth, not otherwise defined	....	....	....	....	....	....	....	....	....	....	....	....	.....
141. Puerperal diseases of the breast	....	....	....	....	....	....	....	....	....	....	....	....	.....
VIII—*Diseases of the Skin and of the Cellular Tissue.*													
142. Gangrene	....	2	2	1	4	....	2	1	2	2	1	2	19
143. Furuncle	....	....	....	....	....	....	1	2	....	....	....	....	3
144. Acute abscess	1	....	....	2	....	....	1	....	....	....	....	1	5
145. Other diseases of the skin and annexa	....	2	1	1	1	....	1	....	4	....	....	1	11
IX—*Diseases of the Bones and of the Organs of Locomotion.*													
146. Diseases of the bones, tuberculosis excepted	1	1	2	....	4	1	3	3	1	1	2	....	19
147. Diseases of joints, tuberculosis and rheumatism excepted	....	....	....	....	1	....	....	....	....	....	....	....	1
148. Amputations	....	....	....	....	....	....	....	....	....	....	....	....	.....
149. Other diseases of the organs of locomotion	....	....	....	....	....	....	....	....	....	....	....	....	.....

TABLE XII (Continued)—*Number of Deaths from All Causes During the Year* 1911.

DISEASES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	November.	Total
X—*Malformations.*													
150. Congenital malformations (stillbirths not included)	5	5	5	3	2	5	3	6	5	6	2	7	54
XI—*Diseases of Early Infancy.*													
151. Congenital debility, icterus and sclerema	34	45	57	49	38	38	49	57	51	32	42	57	549
152. Other diseases peculiar to early infancy	7	4	9	1	7	9	10	10	7	4	13	7	88
153. Lack of care	....	....	....	....	....	....	....	....	....	....	....	....	.....
XII—*Old Age.*													
154. Senility	18	15	17	8	12	10	20	11	11	14	16	14	166
XIII—*Affections Produced by External Causes.*													
155. Suicide by poison	2	4	3	5	1	4	4	1	4	3	2	4	37
156. Suicide by asphyxia	3	1	1	2	....	1	1	2	1	1	5	....	18
157. Suicide by hanging or strangulation	1	1	....	1	....	....	....	1	1	....	....	2	7
158. Suicide by drowning	....	1	....	1	....	....	....	....	....	....	....	....	2
159. Suicide by firearms	5	3	1	3	3	5	....	1	2	....	....	....	23
160. Suicide by cutting or piercing instruments	....	....	2	....	3	....	....	....	....	....	....	....	5
161. Suicide by jumping from a high place	1	....	....	....	1	1	1	1	1	....	1	....	7
162. Suicide by crushing	....	....	....	....	....	....	....	....	....	....	....	....	.....
163. Suicide by other means	....	....	....	....	....	....	.....	1	....	....	....	....	1

164. Poisoning by food	....	....	....	....	....	....	....	....	....	....	....	....	.....
165. Other acute poisonings	1	2	....	....	....	....	....	....	....	1	....	2	6
166. Conflagration	....	....	....	1	....	....	....	....	....	....	....	....	1
167. Burns (conflagration excepted)	9	7	6	10	6	7	....	2	....	3	12	5	67
168. Absorption of deleterious gases, conflagration excepted	1	2	1	1	1	....	....	1	2	3	1	4	17
169. Accidental drowning	1	3	2	4	5	2	4	7	5	5	5	2	45
170. Traumatism by firearms	1	....	....	....	1	....	2	1	1	....	2	....	8
171. Traumatism by cutting or piercing instruments	1	....	....	....	....	....	....	....	....	....	....	....	1
172. Traumatism by fall	6	10	9	9	7	6	9	3	12	7	7	6	91
173. Traumatism in mines and quarries	....	....	....	....	....	....	....	....	....	....	....	....	.....
174. Traumatism by machines	....	1	3	....	....	1	1	1	....	....	1	1	9
175. Traumatism by other crushing (vehicles, railroad, landslides, etc.)	4	5	5	10	11	7	4	8	4	6	6	4	74
176. Injuries by animals	1	....	....	....	....	....	....	1	....	....	....	....	2
177. Starvation	....	....	....	....	....	....	....	....	....	....	....	....	.....
178. Excessive cold	1	....	....	....	....	....	....	....	....	....	....	....	1
179. Effects of heat	....	....	....	....	1	2	51	5	....	....	....	....	59
180. Lightning	....	....	....	....	2	....	....	1	....	....	....	....	3
181. Electricity (lightning excepted)	....	....	....	....	....	....	1	....	....	....	....	....	1
182. Homicide by firearms	4	....	1	3	....	....	1	2	1	1	1	....	14
183. Homicide by cutting or piercing instruments	....	....	1	....	....	1	....	1	2	....	1	2	8
184. Homicide by other means	1	....	1	....	2	....	....	1	....	....	....	....	5
185. Fractures (cause not specified)	....	....	....	....	....	....	....	....	....	....	....	....	.....
186. Other external violence	4	....	1	2	1	4	3	....	1	4	2	3	25
XIV—*Ill-Defined Diseases.*													
187. Ill-defined organic disease	....	1	....	1	....	....	....	1	1	....	1	1	6
188. Sudden death	....	....	....	....	....	....	....	....	....	....	....	....	.....
189. Cause of death not specified or ill-defined	15	14	19	22	13	21	21	26	28	24	15	8	226
Total	993	871	989	932	902	728	929	855	752	798	801	854	10,404

TABLE XIV—*Showing Deaths Due to Zymotic Diseases, with Percentage of the Deaths to Total Mortality, for the Years 1875 to 1911 Inclusive.*

YEARS.	Diphtheria and Croup.	Scarlet Fever.	Typhoid Fever.	Whooping Cough.	Measles.	Smallpox.	Total zymotic diseases.	Total deaths from all causes.	Percentage of zymotic deaths to total mortality.
1875	237	519	187	78	15	1	1,037	7,258	14.29
1876	249	562	176	39	16	.....	1,042	7,498	13.90
1877	557	447	211	303	151	.....	1,669	7,910	21.10
1878	452	141	176	63	11	1	844	6,733	12.54
1879	484	367	167	80	43	1	1,142	7,618	13.68
1880	466	400	196	148	12	1	1,223	8,043	15.20
1881	881	215	197	93	75	11	1,472	8,816	16.70
1882	929	179	165	43	71	551	1,938	8,923	21.72
1883	793	334	126	59	130	633	2,074	9,380	22.11
1884	470	104	151	120	228	1	1,074	8,293	12.95
1885	400	68	155	63	16	.....	702	8,153	8.61
1886	318	32	150	91	201	1	793	8,339	9.49
1887	302	36	156	98	85	.....	677	8,372	8.09
1888	216	44	161	112	176	.....	709	8,936	7.93
1889	208	71	191	54	11	.....	535	8,703	6.15
1890	319	42	247	100	248	.....	956	10,198	9.37
1891	394	128	150	103	16	.....	791	10,073	7.85
1892	428	258	193	32	120	.....	1,031	10,582	9.74
1893	210	36	224	60	39	.....	569	9,554	5.96
1894	231	85	222	112	3	.....	653	9,486	6.88
1895	310	59	173	68	68	.....	678	10,301	6.58
1896	281	31	188	87	27	.....	614	9,919	6.19

TABLE XIV (Continued)—*Showing Deaths Due to Zymotic Diseases, with Percentage of the Deaths to Total Mortality, for the Years* 1875 *to* 1911, *Inclusive.*

YEARS.	Diphtheria and Croup.	Scarlet Fever.	Typhoid Fever.	Whooping Cough.	Measles.	Smallpox.	Total zymotic diseases.	Total deaths from all causes.	Percentage of zymotic deaths to total mortality.
1897	360	53	189	42	16	.....	660	9,329	7.07
1898	412	46	189	64	48	.....	759	10,385	7.30
1899	312	24	153	19	5	1	514	10,152	5.06
1900	279	20	189	47	24	.....	559	10,700	5.22
1901	171	11	141	63	3	.....	389	10,479	3.71
1902	130	37	220	95	41	7	530	10,253	5.17
1903	160	84	189	64	77	2	576	10,141	5.68
1904	115	143	199	24	6	4	491	10,818	4.54
1905	102	33	197	64	67	.....	463	10,695	4.33
1906	115	47	183	151	14	.....	510	10,753	4.74
1907	80	15	230	17	74	.....	416	11,190	3.72
1908	64	70	180	41	17	.....	372	10,435	3.56
1909	76	25	136	117	54	.....	408	10,376	3.93
1910	64	49	235	83	19	.....	450	10,753	4.19
1911	68	44	154	48	77	.....	391	10,404	3.76

TABLE XV—*Showing Number of Cases Reported, and Mortality Therefrom, of Principal Zymotic Diseases During Years* 1894 *to* 1911, *Inclusive, with Percentage of Deaths to Cases Reported Each Year.*

YEARS.	Diphtheria and Croup.			Scarlet Fever.			Measles.			Varicella.		
	Cases reported.	Deaths reported.	Percentage of deaths.	Cases reported.	Deaths reported.	Percentage of deaths.	Cases reported.	Deaths reported.	Percentage of deaths	Cases reported.	Deaths reported.	Percentage of deaths.
1894	409	231	56.48	999	85	8.50	98	3	3.06	53	1	1.88
1895	629	310	49.28	775	59	7.61	2,332	68	2.91	40	.....	.....
1896	653	281	43.03	694	31	4.46	1,002	27	2.69	68	2	2.94
1897	1,620	460	22.22	928	53	5.71	659	16	2.42	47	1	2.12
1898	2,077	412	19.83	588	46	7.82	1,419	48	3.38	119	.....	.....
1899	1,780	312	17.52	434	24	3.52	591	5	0.84	183	.....	.....
1900	1,858	279	15.01	402	20	4.97	2,770	24	0.86	192	.....	.....
1901	1,169	171	14.62	391	11	2.81	466	3	0.64	199	1	0.50
1902	972	130	13.37	481	37	7.69	1,909	41	2.10	331	.....	.....
1903	1,461	160	10.95	1,224	84	6.86	2,203	77	3.50	256	.....	.....
1904	1,272	115	9.04	1,222	143	11.70	344	6	1.74	334	1	0.30
1905	962	102	10.60	615	33	5.37	2,437	67	2.75	234	1	0.43
1906	1,172	115	9.81	577	47	8.15	575	14	2.43	195	4	2.05
1907	867	80	9.23	436	15	3.44	2,268	74	3.26	306	.....	.....
1908	848	64	7.55	1,262	70	5.55	1,895	17	0.90	403	.....	.....
1909	756	76	10.05	456	25	5.48	2,999	54	1.80	445	.....	.....
1910	793	64	8.07	1,173	49	4.18	1,137	19	1.67	380	1	0.26
1911	1,041	68	6.53	1,118	44	3.94	3,576	77	2.15	495	1	0.20

TABLE XV (Continued)—*Showing Number of Cases Reported, and Mortality Therefrom, of Principal Zymotic Diseases During Years* 1894 *to* 1911, *Inclusive, with Percentage of Deaths to Cases Reported Each Year.*

YEARS.	Whooping Cough.			Mumps.			Typhoid Fever.			Tuberculosis.		
	Cases reported.	Deaths reported.	Percentage of deaths.	Cases reported.	Deaths reported.	Percentage of deaths.	Cases reported.	Deaths reported.	Percentage of deaths.	Cases reported.	Deaths reported.	Percentage of deaths.
1894	320	112	35.00	80	1	1.25	.....	222	.....	.....	1,106	.....
1895	171	68	39.76	62	2	3.22	260	173	66.53	.....	1,141	.....
1896	266	87	32.87	73	1	1.36	472	188	39.83	.....	1,122	.....
1897	213	42	19.71	132	.....	.....	363	189	52.06	.....	1,047	.....
1898	335	64	19.10	22	.....	.....	545	189	34.68	.....	1,061	.....
1899	129	19	15.83	26	.....	.....	462	153	33.11	.....	974	.....
1900	239	47	19.66	160	.....	.....	871	189	21.70	274	1,056	385.40
1901	257	63	24.51	214	1	0.47	792	141	17.80	384	1,274	331.77
1902	395	95	24.05	71	1	1.40	1,086	220	20.26	356	1,297	364.33
1903	233	64	27.47	247	.....	.....	768	189	24.61	551	1,336	242.50
1904	78	24	30.77	122	3	2.46	916	199	21.72	478	1,514	316.74
1905	271	64	23.61	42	2	0.24	1,019	197	19.33	715	1,466	205.03
1906	465	151	32.47	57	.....	.....	1,215	183	15.06	733	1 489	203.14
1907	117	17	14.53	756	2	0.26	1,417	230	16.23	712	1,481	208.00
1908	238	41	17.23	49	.....	.....	1,426	180	12.62	745	1,413	189.67
1909	685	117	17.08	38	.....	.....	1,069	136	12.72	919	1,438	156.47
1910	606	83	13.70	249	.....	.....	1,891	235	12.43	3,292	1,396	42.40
1911	343	48	14.00	590	1	0.17	1,201	154	12.82	1,712	1,388	81.07

TABLE XVI—*Showing the Number of Deaths Annually, Due to Typhoid Fever, from the Year* 1888 *to* 1911, *Inclusive, According to Sex and Color.*

YEARS.	Estimated Population.	White.			Colored.			Total Males.	Total Females.	Total Deaths.
		Males.	Females.	Totals.	Males.	Females.	Totals.			
1888	395,899	88	90	178	80	14	94	168	104	272
1889	404,498	88	93	181	23	20	43	111	113	224
1890	413,671	135	109	244	26	31	57	161	140	301
1891	426,917	82	75	157	13	19	32	95	94	189
1892	440,163	90	102	192	19	15	34	109	117	226
1893	453,409	108	120	228	11	16	27	119	136	255
1894	466,665	103	104	207	23	27	50	126	131	257
1895	479,907	82	75	157	21	14	35	103	89	192
1896	493,147	93	81	174	16	14	30	109	95	204
1897	506,398	99	76	175	20	14	34	119	90	209
1898	541,000	96	62	158	19	24	43	115	86	201
1899	541,000	67	62	119	18	16	34	85	68	153
1900	509,369	83	69	152	21	16	37	104	85	189
1901	514,385	66	44	110	11	20	31	77	64	141
1902	519,401	99	78	172	24	24	48	123	97	220
1903	524,417	79	58	137	26	26	52	105	84	189
1904	529,433	91	67	158	26	15	41	117	82	199
1905	534,449	85	73	158	23	16	49	108	89	197
1906	539,465	83	58	141	25	17	42	108	75	183
1907	544,481	112	68	180	27	23	50	139	91	230
1908	549,497	84	68	152	19	9	28	103	77	180
1909	554,513	67	40	107	18	11	29	85	51	136
1910	559,529	101	91	192	23	20	43	124	111	235
1911	564,545	79	45	124	15	15	30	94	60	154

TABLE XVII- *Showing Comparison of Deaths Due to All Causes and Those to Communicable Diseases, from 1875 to 1911, Inclusive.*

YEARS.	Population.	Typhoid Fever.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Pseudo-Membranous Croup.	Croup.	Dysentery.	Diarrhœa and Enteritis, Under Five Years.*	Children Under Five Years of Age.	Total Mortality from All Causes, Exclusive of Still Births.	Death Rate.	Still Births.	Rate of Still Births to 1,000 Inhabitants.
1875	267,354	187	15	519	78	101	136	38	643	3,429	7,258	22.33	560	1.70
1876	267,354	176	16	562	39	157	92	51	702	3,640	7,498	22.38	588	1.75
1877	311,275	211	151	447	303	424	133	49	614	4,029	7,910	22.60	538	1.53
1878	318,182	176	11	141	63	303	149	41	343	2,882	6,733	18.44	655	1.79
1879	325,139	167	42	367	80	298	186	60	475	3,385	7,618	19.30	620	1.57
1880	332,313	196	12	400	148	293	173	57	503	3,602	8,043	20.41	636	1.61
1881	339,649	197	74	215	93	639	242	56	558	3,919	8,816	22.37	651	1.65
1882	347,142	165	71	179	43	707	222	62	582	3,755	8,923	21.81	677	1.71
1883	354,832	126	130	334	59	591	201	52	608	4,062	9,380	22.93	701	1.71
1884	362,668	151	16	68	63	252	148	43	723	3,643	8,293	20.77	746	1.82
1885	370,696	155	16	68	63	252	148	60	682	3,228	8,153	19.55	650	1.59
1886	378,903	150	201	32	91	190	128	84	704	3,565	8,339	19.98	718	1.72
1887	387,300	156	85	36	98	149	153	137	785	3,477	8,372	19.16	669	1.60
1888	395,899	161	176	44	112	118	98	167	805	3,881	8,936	17.87	694	1.63
1889	404,498	191	11	71	54	155	53	156	994	3,505	8,703	17.40	784	1.84
1890	413,671	247	248	42	100	274	45	212	859	4,117	10,108	22.41	800	1 76
1891	426,917	150	16	128	103	350	44	118	852	3,910	10,073	22.14	811	1.78
1892	440,163	193	120	258	32	381	47	109	1,091	4,443	10,582	23.25	813	1.78
1893	453,409	224	39	36	60	185	25	62	762	3,604	9,554	20.99	770	1.69
1894	466,655	222	3	85	112	198	33	72	793	3,761	9,486	20.84	721	1.58

1895.....	479,907	173	68	56	68	265	45	70	637	4,026	10,301	20.76	666	1.30
1896.....	493,147	188	27	31	87	249	32	82	526	3,728	9,919	19.60	678	1.33
1897.....	506,398	189	16	53	42	347	13	57	830	3,510	9,329	18.43	706	1.39
1898.....	541,000	189	48	46	64	362	50	82	720	3,939	10,385	19.19	748	1.38
1899.....	541,000	153	5	24	19	299	13	57	703	3,319	10,152	18.76	706	1.30
1900.....	509,369	189	24	20	47	267	12	77	848	3,695	10,700	20.50	682	1.34
1901.....	514,385	141	3	11	63	164	7	49	726	3,391	10,479	19.77	672	1.30
1902.....	519,401	220	41	37	95	121	9	78	695	3,327	10,253	18.90	659	1.27
1903.....	524,417	189	77	84	64	152	8	40	550	3,102	10,141	18.60	741	1.41
1904.....	529,433	199	6	143	24	114	1	54	671	3,155	10,818	19.70	710	1.34
1905.....	534,449	197	67	33	64	96	6	44	751	3,465	10,695	19.32	814	1.52
1906.....	539,465	183	14	47	151	111	4	37	623	3,319	10,753	19.12	826	1.53
1907.....	544,481	230	74	15	17	78	2	48	747	3,333	11,190	19.56	794	1.46
1908.....	549,497	180	17	70	41	63	1	35	591	2,967	10,435	18.19	811	1.48
1909.....	554,513	136	54	25	117	74	2	33	562	3,071	10,376	17.73	817	1.47
1910.....	559,529	235	19	49	83	64	....	31	598	2,891	10,753	18.33	822	1.47
1911.....	564,545	154	77	44	48	68	....	25	568	2,714	10,404	17.54	712	1.26

*The figures on diarrhœal diseases in children under five years of age are not complete, for the reason that prior to the year 1882 only those dying of "cholera infantum" were so classified, and from and including the year 1906, to conform with the International System of Classification, only those under two (2) years of age are included.

NOTE—In the above table the item "population," which is estimated, has been changed from and including the year 1900, so as to conform with the figures used by the United States Census Bureau. Previous to the census of 1910 the population for the inter-censal years, from 1900 on, was estimated on the assumption that the same, or more, average increase each year was maintained as was the previous decade; but the census for 1910 showed differently, and, therefore, the estimates of population and the death rate for each year has been adjusted accordingly.

FINANCIAL STATEMENT

BY THE

SECRETARY

Financial Statement.

ORIGINAL APPROPRIATION, Salaries	$112,560 84
Wages returned	10 00
	$112,570 84

SALARIES FOR 1911.

Commissioner of Health, James Bosley, M. D., 12½ months,	$3,645 84
Assistant Commissioner of Health, C. Hampson Jones, M. D., 12½ months	3,125 00
Health Warden, Oscar L. Long, M. D., 12½ months	937 50
Health Warden, H. E. Laroque, M. D., 10½ months	787 50
Health Warden, John Roth, M. D., 2 months	150 00
Health Warden, Augustine Palmisano, M. D., 12½ months,	937 50
Health Warden, H. K. Gorsuch, M. D., 12½ months	937 50
Health Warden, J. E. Heard, M. D., 12½ months	937 50
Health Warden, J. T. Spicknall, M. D., 12½ months	937 50
Health Warden, A. L. Rettaliata, M. D., 11½ months	862 50
Health Warden, William J. Schmitz, M. D., 7 days	16 94
Health Warden, J. W. France, M. D., 12½ months	937 50
Health Warden, C. T. Buckner, M. D., 12½ months	937 50
Health Warden, E. H. Hayward, M. D., 12½ months	937 50
Health Warden, N. E. B. Iglehart, M. D., 7 months	525 00
Health Warden, C. E. Downes, M. D., 5½ months	412 50
Health Warden, E. A. Munoz, M. D., 12½ months	937 50
Health Warden, V. F. Kelly, M. D., 12½ months	937 50
Health Warden, William Caspari, M. D., 12½ months	937 50
Health Warden, W. DeF. Olmstead, M. D., 12½ months	937 50
Health Warden, George B. Scholl, M. D., 8½ months	637 50
Health Warden, G. A. Thiede, M. D., 4 months	300 00
Health Warden, G. W. Hemmeter, M. D., 12½ months	937 50
Health Warden, R. A. Warner, M. D., 12½ months	937 50
Health Warden, M. G. Smith, M. D., 12½ months	937 50
Health Warden, H. J. Hahn, M. D., 12½ months	937 50
Health Warden, Alexander E. Muse, M. D., 12½ months,	937 50
Health Warden, J. E. Poulton, M. D., 12½ months	937 50
Health Warden, C. P. Erken-Brack, M. D., 12½ months,	937 50
Amount carried forward	$28,275 28

Amount brought forward	$28,275 28
Health Warden, L. J. Turlington, M. D., 12½ months	937 50
Secretary, M. Harry Laib	1,643 75
Clerk to Bureau of Vital Statistics, Charles W. Busick	1,187 50
Statistician, Arthur D. Thompson	1,080 00
Permit Clerk, Harry C. Andrews	1,000 00
Permit Clerk, Robert R. Krauter, 11½ months	958 34
Commissioner's Clerk, Victor Dennis, 11½ months	862 50
Registrar's Clerk, George C. Wedderburn	900 00
Complaint Clerk, Howard A. Moore	900 00
Index Clerk, James J. O'Meara	900 00
Medical Examiner, N. G. Kierle, M. D.	1,500 00
Assistant Medical Examiner, Henry G. Branham, M. D.	500 00
Throat Inspector, W. P. Stubbs, M. D.	500 00
Throat Inspector, B. P. Herzog, M. D.	500 00
Bacteriologist, William Royal Stokes, M. D.	1,500 00
Assistant Bacteriologist, F. W. Hachtel, M. D.	1,200 00
Assistant Bacteriologist, William J. Schmitz, M. D.	1,000 00
Laboratory Clerk, John A. Campbell 6½ months, 7 days	504 37
Laboratory Clerk, Harry J. Campbell, 5 months	375 00
Collector for Laboratory, Edward F. Kelly	900 00
Laboratory Assistant, G. Harry Rush	895 83
Laboratory Assistant, William A. Gunther, 6 months	120 00
Laboratory Assistant, Vernon Clages, 6 months	120 00
Laboratory Assistant, George Considine	240 00
Laboratory Assistant, Charles McLaughlin, 8½ months	170 00
Laboratory Assistant, Harry Maloney, 3 months	60 00
Chemist, Fred C. Blanck, 11½ months	1,437 50
Chemist, William E. Hoffman, Jr., ½ month	62 50
Assistant Chemist, C. Clifton Howes	1,200 00
Assistant Chemist, Charles O. Bowman, 5 months	295 00
Assistant Chemist, Raymond Freas, 7 months	420 00
Laboratory Assistant, William McGinniss, 7 months	205 00
Laboratory Asistant, L. J. Houghton, Jr., 2 months	60 00
Laboratory Assistant, Charles McLaughlin, 3 months	90 00
Chemical Laboratory Clerk, Michael Cahan, 9 months	675 00
Chemical Laboratory Clerk, Walter Wright, ½ month	37 50
Chemical Laboratory Clerk, Harry J. Ward, 2 months	150 00
Chief Food Inspector, William P. Palmer, 11½ months	1,150 00
Food Inspector, Charles Knell	900 00
Amount carried forward	$55,412 57

Amount brought forward	$55,412 57
Food Inspector, Philip T. Meagher	900 00
Food Inspector, William B. Roth	900 00
Food Inspector, George J. Fischer	900 00
Food Inspector, Rudolph Bolard, 11½ months	862 50
Food Inspector, August H. Ritmiller, ½ month	37 50
Food Inspector, Joseph Sapp	900 00
Food Inspector, James E. Hood	900 00
Food Inspector, George H. Lentz	900 00
Food Inspector, Michael J. Buckley	900 00
Food Inspector, John Behr	900 00
Food Inspector, George A. Brady	900 00
Inspector of Bakeries, Rudolph Weber	900 00
Inspector of Cow Stables, George F. Schultz	900 00
Stenographer, Catherine Kilfoyle	720 00
Telephone Operator, Ola Tracey	475 00
Chief Tenement House Inspector, William H. Davenport, 11½ months	1,150 00
Tenement House Inspector, C. E. Downes, M. D., 6½ months	487 50
Tenement House Inspector, John A. Kelly, 5½ months	412 50
Tenement House Inspector, Abraham Lasch	900 00
Inspector of Plumbing, Charles I. Putts, Jr.	1,487 50
Assistant Inspector of Plumbing, John Ward	900 00
Assistant Inspector of Plumbing, John J. Gessler	900 00
Assistant Inspector of Plumbing, Albert Share	900 00
Assistant Inspector of Plumbing, Henry H. Smith	900 00
Assistant Inspector of Plumbing, Robert A. Reed	900 00
Assistant Inspector of Plumbing, William E. Dorsey	900 00
Assistant Inspector of Plumbing, Michael J. Gorman	900 00
Assistant Inspector of Plumbing, Henry Kohlerman, 11½ months	862 50
Assistant Inspector of Plumbing, Wm. C. Frosburg, 11½ months	862 50
Drain Inspector, Francis A. Ebberts	900 00
Clerk to Plumbing Division, Frank B. Wood	900 00
Nuisance Clerk, Edward Thompson, 11½ months	862 50
Fumigation Clerk, William E. Woodall	1,191 66
Superintendent of Morgue, P. R. Glynn, 9 days	21 78
Superintendent of Morgue, Aug. H. Ritmiller, 11½ months	1,150 00
Fumigator, George W. Phillips	800 00
Amount carried forward	$85,696 01

Amount brought forward	$85,696 01
Fumigator, Joseph Fitzsimmons	800 00
Fumigator, William W. Stanton	800 00
Fumigator, Meyer Raitzyk	800 00
Fumigator, Rudolph Bolard, ½ month	33 33
Fumigator, H. G. Seidell, 11½ months	766 67
Driver, Thomas Freeze, 11 months	660 00
Driver, Otis K. Pease, ½ month	30 00
Driver, James L. Fitzpatrick, ½ month	30 00
Driver, William C. Conner, 11 months	660 00
Driver, William M. Bucheimer, 25 days	50 00
Driver, Thomas Daly	720 00
Medical Examiner of Schools H. Warren Buckler, M. D.,	600 00
Medical Examiner of Schools, I. R. Page, M. D.	600 00
Medical Examiner of Schools, J. Howard Iglehart, M. D.,	600 00
Medical Examiner of Schools, G. A. Thiede, M. D., 8 months	400 00
Medical Examiner of Schools, A. K. Bond, M. D., 3½ months	175 00
Medical Examiner of Schools, R. A. Urquhart, M. D.	600 00
School Nurse, Virginia B. Lorentz	600 00
School Nurse, Marie A. Gorter	600 00
School Nurse, Sally L. Jean	600 00
School Nurse, Henrietta E. Knorr	600 00
School Nurse, Agnes P. Kloman	600 00
Statistical Clerk, Lucy I. Cowell	600 00
Nurse in Charge Tuberculosis Division, Ellen N. Lamotte 8 months	795 83
Nurse in Charge Tuberculosis Division, Elizabeth C. Lee, 4 months	400 00
Tuberculosis Nurse, Rebecca M. Coale	900 00
Tuberculosis Nurse, Julia G. Reid, 1 month	75 00
Tuberculosis Nurse, Mary L. Kelly, 10 months, 39 days	822 50
Tuberculosis Nurse, Lillian Oeligrath, 11½ months, 4 days,	872 18
Tuberculosis Nurse, Jennie B. Newman	900 00
Tuberculosis Nurse, Margaret Kennedy	900 00
Tuberculosis Nurse, K. M. Nash, 11 months, 27 days	891 37
Tuberculosis Nurse, Annie L. Murphy, 5 months, 28 days,	445 00
Tuberculosis Nurse, Nancy M. MacNabb, 2½ months	187 50
Tuberculosis Nurse, Ida L. Lilly	900 00
Amount carried forward	$105,710 39

Amount brought forward	$105,710 39
Tuberculosis Nurse, Hattie B. Clements, 5 months	375 00
Tuberculosis Nurse, Cecelia Sweitzer, 5 months	375 00
Tuberculosis Nurse, Marion I. Luby, 2 months	150 00
Tuberculosis Nurse, Elizabeth C. Lee, 8 months	600 00
Tuberculosis Nurse, Annie D. Winters, 2½ months	187 50
Tuberculosis Nurse, L. M. Schroeder, 5 months	375 00
Tuberculosis Nurse, Lillian Harmison, 4½ months	337 50
Tuberculosis Nurse, Lena B. Price, 7 months, 13 days	556 33
Tuberculosis Nurse, Ellen M. Hellier	900 00
Tuberculosis Nurse, Rosalie C. Levelle	900 00
Tuberculosis Nurse, Helen M. Bacon	900 00
Playground Nurse, Sally L. Jean, 2 months, 1910	150 00
Playground Nurse, Mary T. Smith, 2 months, 1910	150 00
Playground Nurse, Sally L. Jean, 2 months, 1911	150 00
Playground Nurse, Henrietta E. Knorr, 2 months, 1911	150 00
Commissioner of Health, James Bosley, M. D.	170 00
Total expenditures	$112,136 72
Original appropriation	$112,570 84
Total expenditures	112,136 72
Surplus of credit	$434 12
Balance to surplus, 1911	434 12

Health Department Revenue.

SALE OF BIRTH AND DEATH TRANSCRIPTS.

January	$81 00
February	62 00
March	91 00
April	88 00
May	72 50
June	65 50
July	73 60
August	74 00
September	77 00
October	77 50
November	71 50
December	68 00
Total receipts	$901 60
Paid into City Treasury	901 60

Health Department Expenses.

Original Appropriation, Expenses $29,550 00

EXPENDITURES.

Fumingation, formaline, etc.	$4,177 00	
Transportation, car fare, etc.	3,150 00	
Advertising	40 13	
Subscriptions to journals	204 97	
Sundry bills	2,007 44	
Diphtheria antitoxin	2,010 01	
Annual Report, printing, etc.	675 95	
Morgue, incinerating and disinfecting plants	1,416 47	
Bacteriological laboratory	3,304 07	
Chemical laboratory	1,251 30	
Disinfectants	809 70	
Vaccine virus	876 51	
Care and prevention of infectious diseases	106 14	
Postage, etc.	2,320 00	
Livery, hiring, etc.	4,713 23	
Medical inspection of public schools	42 21	
Coffins for poor	252 00	
Digging graves for pauper dead	84 50	
Nurses' division	275 04	
Total expenditures		27,716 67
Surplus of credit		$1,833 33
Balance to surplus, 1911		1,833 33

Abatement of Nuisances.

Original Appropriation		$1,000 00
Collections		689 52
		$1,689 52

EXPENDITURES.

P. Flanigan & Sons	$362 28
James McCrea & Sons	60 94
James McCrea & Sons	161 45
James McCrea & Sons	259 21
William Hellbach	320 73
P. Flanigan & Sons	187 14
B. F. Sweeten & Son	78 77
James McCrea & Sons	67 69
P. Flanigan & Sons	114 70
Total expenditures	1,612 91
Surplus of credit	$76 61
Balance to surplus, 1911	76 61

Quarantine Station.

Original Appropriation, Salaries		$14,485 00
Wages returned		5 00
		$14,490 00

SALARIES FOR 1911.

Assistant Health Commissioner, Thomas L. Richardson, M. D.	$3,000 00	
Assistant Resident Physician, T. W. Clark, M. D., 6 months, 5 days	940 00	
Assistant Resident Physician, A. D. Driscoll, 5½ months, 4 days	860 00	
Captain of Tugboat No. 1, James C. Evans	840 00	
Captain of Tugboat No. 2, William T. Green	780 00	
Engineer of Tugboat No. 1, John Kellner	840 00	
Engineer of Tugboat No. 2, Bernard E. Eckert	780 00	
Fireman of Tugboat No. 1, John L. Smith	660 00	
Fireman of Tugboat No. 2, George W. Bevans, ½ month	27 50	
Fireman of Tugboat No. 2, William J. Shadrick 1 month	55 00	
Fireman of Tugboat No. 2, Thomas L. Barrett, 8 days	15 71	
Fireman of Tugboat No. 2, Patrick McCauley, 10 months, 5 days	559 82	
Deckhand of tugboat, Bernard McMahon	660 00	
Deckhand of tugboat, George W. Bevans, 11½ months	632 50	
Messenger, George M. Streeper	660 00	
Gardener, John L. Matthu	660 00	
Nurse, M. T. Armacost	660 00	
Cook, Henrietta Blackwell	300 00	
Laundress, Alisha Brown, 3½ months	70 00	
Laundress, Josephine Brooks, 1 month	20 00	
Laundress, Annie Conner, 1 month, 7 days	24 52	
Laundress, Hattie Gasway, 1½ months, 4 days	32 58	
Laundress, Fannie Toomey, 1 month, 18 days	31 61	
Laundress, Sarah Cook, 2½ months	50 00	
Extra Nurse, Laura Dobson	157 00	
Amounts carried forward	$13,316 24	$14,490 00

Amounts brought forward	$13,316 24	$14,490 00
Extra Nurse, Ellen Brown	48 43	
Extra Nurse, Annie Conner	34 84	
Leper Nurse, Annie M. Palmer, 7 months, 7 days,	578 06	
Total expenditures		13,977 57
Surplus of credit		$512 43
Balance to surplus		512 43

QUARANTINE HOSPITAL EXPENSES.

ORIGINAL APPROPRIATION, Expenses	$8,550 00
Received from Baltimore county (Md.) for smallpox case	35 87
	$8,585 87

EXPENDITURES.

Market supplies	$1,899 76	
Groceries	748 85	
General supplies	389 70	
Feed	578 57	
Coal for buildings	344 50	
Coal for boats	688 07	
Ice	148 80	
Hospital supplies	148 73	
Farm expenses	51 85	
Repairs to boats	1,139 25	
Gasoline, coal oil, etc	220 50	
Subscription to Maritime Exchange	300 00	
General expenses	1,095 71	
Expenses for leper	221 74	
Lighting plant	143 60	
Total expenditures		8,119 63
Surplus of credit		$466 24
Balance to surplus, 1911		466 24

SYDENHAM HOSPITAL.

ORIGINAL APPROPRIATION, Salaries		$10,420 00
Wages returned		2 42
		$10,422 42

SALARIES FOR 1911.

Superintendent, W. P. Morrill, M. D.	$1,979 09	
Assistant Physician, J. S. Brotherhood, M. D., 2 months	100 00	
Assistant Physician, R. W. Reynolds, M. D., 4½ months, 9 days	239 51	
Assistant Physician, J. E. Quigley, M. D., 5 months, 6 days	259 68	
Superintendent of Nurses, I. P. Kamerer	892 50	
Nurse, Clorinda Thompson, 1 month, 12 days	48 55	
Nurse, Kathleen West, 4 months, 2 days	127 26	
Nurse, Julia Kensinger, 4 months, 13 days	154 68	
Nurse, Nellie E. Cook, 7 months, 2 days	275 08	
Nurse, Clara M. Case, 4 months, 8 days	149 03	
Nurse, Margaret H. Henderson, 2½ months	87 50	
Nurse, Clorinda Thompson, 3½ months	166 09	
Nurse, Florence Madgeburg, 3½ months	122 50	
Nurse, Harriet S. Cooper, 7 months, 2 days	247 26	
Nurse, Adele Scudder, 4 months, 12 days	153 56	
Nurse, Carrie E. Pangle, 7 months, 2 days	239 76	
Nurse, Zeta Shaw, 34 days	34 35	
Nurse, Clara B. Case, 9 days	9 03	
Nurse, Louise Morstatt, 5 months	160 00	
Special Nurse, Kate Roberts, 6 weeks, 3 days	160 71	
Special Nurse, M. Field, 15 days	53 57	
Special Nurse, I. M. Kersey, 4 months, 24 days	193 97	
Special Nurse, Sarah Mearns, 21 days	75 00	
Special Nurse, Ruth K. Jones, 3 days	10 71	
Supervisor, Mary L. Winter, 1½ months, 8 days	79 11	
Clerk, Leroy Knachel, 4 months, 10 days	174 72	
Clerk, Edgar Fay, 7 months, 9 days	362 90	
Cook, Mary Kennedy	300 00	
Amounts carried forward	$6,856 12	$10,422 42

Amounts brought forward	$6,856 12	$10,422 42
Laundress, Ella Rockel	300 00	
Maid, Mary Straughn	240 00	
Maid, Margaret Glenn	240 00	
Maid, Anna Hutchins, 5½ months, 1 day	110 65	
Maid, Sophia Beyer, 4 months, 1 day	80 97	
Orderly, Edward Vogler, 11 months	440 00	
Orderly, Edward Meehan, 1 month	40 00	
Orderly, Nicholas Sterner, 1 month	30 00	
Orderly, Michael Holloran, 11 months	326 61	
Driver, William Beeks	360 00	
Laborer, Bode McLain, ½ month	15 00	
Laborer, John J. Sterner, ½ month	15 00	
Laborer, James Keller, 1 month, 29 days	59 51	
Laborer, George Trice, 9 months	270 00	
Messenger, John Burns	360 00	
Total expenditures		9,743 86
Surplus of credit		$678 56
Balance to surplus, 1911		678 56

Sydenham Hospital.

Original Appropriation, Expenses $16,800 00

EXPENDITURES.

Subsistence	$4,328 28	
Department expenses	3,619 24	
General house and property expenses	2,336 09	
Capital expenses	1,434 84	
Professional care of patients	1,860 50	
Administration expenses	3,073 65	
Total expenditures		16,652 60
Surplus of credit		$147 40
Balance to surplus, 1911		147 40

REVENUE.

Amount collected for care of patients		$343 05
Catherine Burkhardt	$66 81	
Helen Thompson	41 00	
C. N. Ried	23 57	
Viola Barthold	31 43	
Lenora Asunsclo	10 00	
Ballard Burgher	21 43	
A. H. Turner	35 81	
B. L. Spindelt	17 86	
Emily Blunt	40 00	
A. Schumacher & Co	28 00	
L. Friedman	20 00	
Dr. George Loeffler	7 14	
Total revenue		343 05

REPORT

OF THE

BACTERIOLOGICAL LABORATORY

Report of the Bacteriological Laboratory.

BALTIMORE, January 1, 1912.

DR. JAMES BOSLEY,
Commissioner of Health.

DEAR SIR:—I hereby respectfully report on the work performed in the Bacteriological Laboratory, Sub-Department of Health, during the year ending December 31st, 1911.

BACTERIOLOGICAL EXAMINATION OF THE WATER SUPPLY.

In order to differentiate between the condition of the general water supply before the treatment with calcium hypochlorite was begun and after this method of disinfection was instituted we have been compelled to divide the statements concerning the bacteriological examination of the general water supply into two subdivisions, and we shall first consider the results of the bacteriological examination before the treatment of the water was begun. This method was instituted in connection with the Lake Roland supply on June 7th, and the treatment of the Loch Raven supply was commenced on June 22nd. From the first of January until the above dates we have made 132 examinations of the untreated drinking water. The results of these various examinations are divided into those made from the rivers or streams on the water shed supplying the impounding reservoirs; specimens from the two impounding reservoirs, namely: Loch Raven and Lake Roland; specimens from the seven storage reservoirs, namely: Lake Montebello, Lake Clifton, Lake Guilford, Lake Ashburton, and Hampden Lake, Druid Lake, Western High Service Reservoir; and from

specimens collected from the various city taps in different wards. The results of these examinations are as follows:

Water Shed.—We made 20 examinations of various streams from the water shed and the bacterial count was between 1 and 500 and 500 and 1,000 bacteria per cubic centimeter in no case; between 1,000 and 5,000 in seven cases; between 5,000 and 10,000 in four cases, and over 10,000 in nine cases.

Impounding Reservoirs.—We made ten examinations of the impounding reservoirs, and the bacterial count was between 500 and 1,000 in one instance; between 1,000 and 5,000 twice; between 5,000 and 10,000 five times, and above 10,000 twice.

Storage Reservoirs.—There were twenty examinations from the storage reservoirs, and the bacterial count was between one and 500 in eighteen cases; between 500 and 1,000 in one instance, and and between 1,000 and 5,000 once.

City Taps.—We made eighty-two examinations of the city taps, and the count was between 1 and 500 in thirty-six instances; between 500 and 1,000 in twenty-five cases, and between 1,000 and 5,000 in twenty-one instances.

In seven specimens from the water shed in which the bacteria varied between 1,000 and 5,000 the colon bacillus was present five times and absent twice, being present in 71.4%; in specimens varying between 5,000 and 10,000 the colon bacillus was present four times and absent in none, being present in 100%; in nine specimens above 10,000 the colon bacillus was present nine times, this also being a percentage of 100 present.

In one specimen from the impounding reservoirs varying from 500 to 1,000 the colon bacillus was present; in two specimens varying between 1,000 and 5,000 the colon bacillus was present in both specimens; in five specimens varying between 5,000 and 10,000 the colon bacillus was present four times and

absent once, being present in 80 per cent. of cases; in two specimens above 10,000 the colon bacillus was present in both instances.

In eighteen specimens from the storage reservoirs varying between 1 and 500 the colon bacillus was present ten times and absent eight, being present in 55.5 per cent.; in one specimen between 500 and 1,000 the colon bacillus was present; and in one specimen between 1,000 and 5,000 the colon bacillus was not found.

In thirty-five specimens from the city taps between 1 and 500 the colon bacillus was present fourteen times and absent twenty-one times, being present in 40 per cent.; in twenty-six specimens between 500 and 1,000 the colon bacillus was present twelve times and absent fourteen, a percentage of 46.1; in twenty-one specimens 1,000 and 5,000 the colon bacillus was present nine times and absent twelve times, being present in 42.8 per cent.

As mentioned previously the treatment of the Lake Roland supply with calcium hypochlorite was begun on June 7th and the treatment of the Loch Raven supply was commenced on June 22nd. A number of special studies have been made concerning the result of this treatment, and the entire subject of the treatment of the city water by means of calcium hypochlorite will be found at the end of this report as a special investigation.

EXAMINATIONS OF PUMPS, WELLS AND SPRINGS.

During the year we have examined seventy-four specimens collected from pumps, wells and springs within the city limits. The bacterial count in forty-six of these specimens varied between 1 and 500 bacteria per c. c.; in these the colon bacillus was found thirty-three times or in 71.7%. In counts varying from 500 to 1,000 the colon bacillus was found in fourteen of the fifteen samples, or 93.3%. It varied from 1,000 to 5,000 in thirteen cases, and the colon bacillus was present in every

instance. This shows that many of the pumps and springs which supply water to the citizens of Baltimore are grossly polluted. A large number of these examinations was made during the season of muddy water last summer, and these analyses were the cause of closing many of these wells to the public. I am unable to state, however, whether these wells have been permanently closed or whether they are still being used by the citizens. A moderate number of these examinations was made of the springs in the various parks and with one or two exceptions these have all been found to be pure.

EXAMINATIONS OF TABLE WATER.

We have examined 140 samples of the different table waters sold in Baltimore with the following results: In eighty-three samples the bacterial count varied between 1 and 100; in six cases between 100 and 200; in six between 200 and 300; in four between 300 and 400; in five between 400 and 500; in eleven between 500 and 1,000; in fourteen between 1,000 and 2,000; in three between 2,000 and 3,000; in two between 4,000 and 5,000; in three between 5,000 and 10,000; and in three between 10,000 and 15,000. In water varying between 1 and 100 the colon bacillus was found eight times, or in 9% of cases; in water varying between 200 and 300 it was found once; between 300 and 400, once; between 400 and 500, twice, and between 500 and 1,000 once. In water varying between 1,000 and 2,000 it was found four times or in 28%; between 2,000 and 3,000 it was found twice; between 4,000 and 5,000 once; between 5,000 and 10,000 once; and between 10,000 and 15,000 twice.

These examinations show that the table waters sold in Baltimore are usually free from contamination, but they also show that practically every one of these table waters occasionally shows evidence of intestinal contamination with or without a very high bacterial count, and that they often show high bac-

terial counts without any evidence of intestinal pollution. The small percentage of examples of intestinal pollution would seem to show that the water itself is not contaminated at the source but that occasionally through dirty methods of handling, careless methods of washing the bottles, and by substituting other water which may be polluted for the original water by individuals not connected with the establishment itself, the water gets on the market as a polluted water. The number of high bacterial counts without any evidence of intestinal pollution would seem to indicate that the water may be kept in warm rooms for some time before being dispensed to the customer, and the original low bacterial count may be greatly increased under these conditions.

SPECIAL EXAMINATIONS.

Thirty-seven special examinations were made for various citizens from such things as water-stills, household filters, city taps, and various standpipes, used in the distribution of water throughout the city. These were all reported to the various persons requesting these examinations.

TABLE NO. 1—*Pumps, Wells and Springs*, 1911.

BACTERIA PER CUBIC CENTIMETER.	Number of Examinations.	Colon Bacillus Present.	Percentage Positive for Colon Bacillus.
1-500	46	33	71.7
500-1000	15	14	93.3
1000-5000	13	13	100.0
Total	74	60	81.0

TABLE No. 2—*Examination of Table Water for* 1911.

BACTERIA PER CUBIC CENTIMETER.	Number of Examinations.	Colon Bacillus Present.	Percentage Positive for Colon Bacillus.
1-100	83	8	9.6
100-200	6	0	0.0
200-300	6	1	16.6
300-400	4	1	25.0
400-500	5	2	40.0
500-1000	11	1	9.0
1000-2000	14	4	28.5
2000-3000	3	2	66.6
4000-5000	2	1	50.0
5000-10,000	3	1	33.3
10,000-15,000	3	2	66.6
Total	140	23	16.4

BACTERIOLOGICAL EXAMINATION OF MILK.

During the year we have made 1,437 bacteriological examinations of milk, including the numerical estimations of the bacteria per cubic centimeter and 1,290 examinations for the presence of the colon bacillus. Of these 1,437 samples of milk 793 were collected at the various railroad stations, 544 in dairies, shops and wagons, and the remaining 100, which will be considered later, were samples of pasteurized milk. In comparing the percentage of colon bacilli present, we have this year, as in 1910, included among the positive tests those specimens from which, though giving a positive presumptive reaction, we failed to isolate the colon bacillus in pure cultures.

The colon bacillus was found in 756 of the 1,190 samples and was absent in 433 specimens, a percentage of 63.5 and 36.4 respectively. In the one remaining specimen the bottle was

broken before examination. In specimens of milk containing 10,000 bacteria per cubic centimeter, or under, the colon bacillus was not found fourteen times, a percentage of 100. In specimens between 10,000 and 50,000 it was found ten times and absent fifty-one, a percentage of 16.4 and 83.6, respectively. In specimens between 50,000 and 100,000 it was found seventeen times and absent sixty-two times, a percentage of 21.5 and 78.5, respectively. In samples between 100,000 and 500,000 it was present ninety-six times and absent 172 times, a percentage of 35.8 and 64.1, respectively. In specimens varying from 500,000 to 1,000,000 it was present eighty-nine times and absent fifty-four, or 62.2 and 37.7 per cent., respectively; in specimens between 1,000,000 and 10,000,000 the colon bacillus was found 445 times and not found sixty-nine times, or 86.5 and 13.4 per cent., respectively. In those varying from 10,000,000 to 50,000,000 it was present ninety-two times and absent five times, or 94.8 and 5.1 per cent., respectively. In five samples containing more than 50,000,000 bacteria the colon bacillus was present in all the samples. In the eight specimens in which no count was made the bacillus coli was present twice, or 25 per cent., and absent six times, or 75 per cent.

In fourteen specimens the bacteria were 10,000 or under per cubic centimeter; in sixty-one samples they varied between 10,000 and 50,000; in seventy-nine samples they varied between 50,000 and 100,000; in 268 between 100,000 and 500,000; in 143 between 500,000 and 1,000,000; in 514 between 1,000,000 and 10,000,000; in ninety-seven between 10,000,000 and 50,000,000; and in five samples there were more than 50,000,000 bacteria per cubic centimeter. In the eight samples in which the bacterial count was not made the plates were so crowded at a dilution of 1-10,000 that the colonies could not be counted.

From January to June, inclusive, 506 specimens were collected, and of these 243, or 47.9 per cent., contained fewer than 500,000 bacilli per cubic centimeter. From July to December

683 samples were collected, and 179, or 26.2 per cent., of these contained fewer than 500,000 bacilli. During July, August and September 423 samples were examined; in 63, or 14.8 per cent., the bacterial count was less than 500,000 per cubic centimeter. During the year 422, or 35.4 per cent., of the samples contained fewer than 500,000 bacteria per cubic centimeter.

TABLE No. 3—*Comparison of the Milk Collected During the First Six Months with that Collected During the Latter Six Months.*

BACTERIAL COUNT.	January to June.			July to December.		
	Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.		Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.	
1 to 10,000	6	0	0.0%	8	0	0.0%
10,000 to 50,000	36	7	19.4%	25	3	12.0%
50,000 to 100,000	45	8	17.7%	34	9	26.4%
100,000 to 500,000	156	41	26.2%	112	55	49.1%
500,000 to 1,000,000	62	34	54.8%	81	55	67.9%
1,000,000 to 10,000,000	188	141	75.0%	326	304	93.2%
10,000,000 to 50,000,000	11	8	72.7%	86	84	97.6%
Over 50,000,000	0	0	0.0%	5	5	100.0%
No count made	2	1	50.0%	6	1	16.6%
Total	506	240	47.4%	683	516	75.5%

TABLE NO. 4—*Comparison of the Milk Collected During July, August and September and that Collected During the Year.*

BACTERIAL COUNT.	July, August and September.			January to December.		
	Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.		Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.	
1 to 10,000	1	0	0.0%	14	0	0.0%
10,000 to 50,000	1	0	0.0%	61	10	16.4%
50,000 to 100,000	8	4	50.0%	79	17	21.5%
100,000 to 500,000	53	31	58.5%	268	96	35.8%
500,000 to 1,000,000	38	34	89.4%	143	89	62.2%
1,000,000 to 10,000,000	236	230	97.4%	514	445	86.5%
10,000,000 to 50,000,000	76	76	100.0%	97	92	94.8%
Over 50,000,000	4	4	100.0%	5	5	100.0%
No count made	6	1	16.6%	8	2	25.0%
Total	423	380	89.8%	1189	756	63.5%

TABLE NO. 5—*Showing Percentage of Samples in Which the Bacterial Count is Below* 500,000.

BACTERIAL COUNT.	January to June.		July to December.		July, August and September.		January to December.	
	Number of Samples.	Percentage.	Number of Samples.	Percentage.	Number of Samples.	Percentage	Number of Samples.	Percentage.
Under 500,000 per c. c.	243	47.9	179	26.2	63	14.8	422	35.4
Over 500,000 per c. c.	263	52.0	504	73.7	360	85.1	767	64.5

These tables show that the colon bacillus is more frequently present during the warmer months, and that a larger percentage of the samples contains more than 500,000 per cubic centimeter.

EXAMINATIONS OF MILK COLLECTED FROM DAIRIES, WAGONS AND SHOPS.

As mentioned before, 544 samples of the milk examined were collected from the various dairies, dairy wagons and small shops. The colon bacillus was found 385 times and was not found 159 times, a percentage of 70.7 and 29.2, respectively. In three specimens of milk in which the bacterial count was 10,000 per cubic centimeter or under, the colon bacillus was absent. In specimens varying from 10,000 to 50,000 it was found once and not found seven times, a percentage of 12.5 and 87.5, respectively. In those varying from 50,000 to 100,000 it was present four times and absent twelve times, or 25 and 75 per cent., respectively; in the samples between 100,000 and 500,000 it was present forty-five times and absent sixty-eight times, or 39.8 and 60.1 per cent., respectively. In those between 500,000 and 1,000,000 it was found in forty-four or 65.6 per cent., and was absent in twenty-three, or 34.3 per cent. In specimens between 1,000,000 and 10,000,000 it was found 236 times and not found forty-one times, or 85.2 and 14.8 per cent., respectively. In those between 10,000,000 and 50,000,000 it was present fifty-two times, or 94.5 per cent., and absent three times, or 5.4 per cent. The colon bacillus was found in two samples in which the count was more than 50,000,000, and in one of the three specimens in which no count was made.

In three samples the bacterial count was 10,000 per cubic centimeter or less; in eight specimens the bacteria varied from 10,000 to 50,000; in sixteen from 50,000 to 100,000; in 113 from 100,000 to 500,000; in sixty-seven from 500,000 to 1,000,000,000; in 277 from 1,000,000 to 10,000,000; in fifty

five from 10,000,000 to 50,000,000. In two cases the count was over 50,000,000, and in three no bacterial count was made In 140 specimens of milk the bacterial count was under 500,000 per cubic centimeter, and in 404 specimens it exceeded 500,000 per cubic centimeter, this being a percentage of 25.7 and 74.2 respectively.

TABLE No. 6—*Comparison Between Milk Collected from Dairies, Wagons and Shops During the First Six Months and that Collected During the Latter Six Months.*

BACTERIAL COUNT.	January to June.			July to December.		
	Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.		Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.	
1 to 10,000	1	0	0.0%	2	0	0.0%
10,000 to 50,000	6	1	16.6%	2	0	0.0%
50,000 to 100,000	12	3	25.0%	4	1	25.0%
100,000 to 500,000	72	21	29.1%	41	24	58.5%
500,000 to 1,000,000	35	21	60.0%	32	23	71.5%
1,000,000 to 10,000,000	115	87	75.6%	162	149	91.9%
10,000,000 to 50,000,000	5	3	60.0%	50	49	98.0%
Over 50,000,000	0	0	0.0%	2	2	100.0%
No count made	2	1	50.0%	1	0	0.0%
Total	248	137	55.2%	296	248	83.7%

TABLE No. 7—*Comparison Between Milk from Dairies, Wagons and Shops Collected During the Year and that Collected During July, August and September.*

BACTERIAL COUNT.	January to December.			July, August and September.		
	Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.		Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.	
1 to 10,000	3	0	0.0%	0	0	0.0%
10,000 to 50,000	8	1	12.5%	0	0	0.0%
50,000 to 100,000	16	4	25.0%	2	0	0.0%
100,000 to 500,000	113	45	39.8%	17	11	64.7%
500,000 to 1,000,000	67	44	65.6%	9	8	88.8%
1,000,000 to 10,000,000	277	236	85.2%	113	110	97.3%
10,000,000 to 50,000,000	55	52	94.5%	46	46	100.0%
Over 50,000,000	2	2	100.0%	2	2	100.0%
No count made	3	1	33.3%	1	0	0.0%
Total	544	385	70.7%	190	177	93.1%

TABLE No. 8—*Showing Percentage of Samples Collected from Dairies, Wagons and Shops in Which the Bacterial Count is Below* 500,000.

BACTERIAL COUNT.	January to June.		July to December.		July, August and September.		January to December.	
	Number of Samples.	Percentage.	Number of Samples.	Percentage.	Number of Samples.	Percentage.	Number of Samples.	Percentage.
Under 500,000 per c. c.	91	36.6	49	16.5	19	10.0	140	25.7
Over 500,000 per c. c.	157	63.3	247	83.4	171	90.0	404	74.2

These tables also show a higher percentage of colon bacilli present and a larger number of high bacterial counts during the warmer months.

EXAMINATION OF MILK COLLECTED FROM RAILROAD STATIONS.

During the year we made 645 examinations of milk collected at the various railroad stations, and found the colon bacillus in 371 specimens, or 57.5 per cent., and did not find it in 274, or 42.4 per cent. In eleven specimens containing fewer than 10,000 bacteria per cubic centimeter the colon bacillus was not found. In those varying from 10,000 to 50,000 it was present in nine, or 17 per cent., and absent in forty-four, or 83 per cent. In those between 50,000 and 100,000 it was found thirteen times and not found fifty times, or 20.6 and 79.3 per cent., respectively. In those between 100,000 and 500,000 it was present fifty-one times and absent 104 times, or 32.9 and 67.0 per cent., respectively. In specimens between 500,000 and 1,000,000 the colon bacillus was present in forty-five, or 59.2 per cent., and absent in thirty-one, or 40.7 per cent. In those varying from 1,000,000 to 10,000,000 it was found 209 times and not found twenty-eight times, a percentage of 88.1 and 11.8, respectively. In those from 10,000,000 to 50,000,000 it was found forty times and not found twice, a percentage of 95.2 and 4.7, respectively. In three specimens containing more than 50,000,000 bacteria the colon bacillus was found in all three. The colon bacillus was found in one specimen and not found in four specimens in which no count was made, a percentage of twenty and eighty, respectively.

In eleven specimens the bacterial count was 10,000 per cubic centimeter or under; in fifty three specimens it varied from 10,000 to 50,000; in sixty-three from 50,000 to 100,000 per cubic centimeter; in 155 from 100,000 to 500,000 per cubic centimeter; in seventy-six from 500,000 to 1,000,000; in 237 from 1,000,000 to 10,000,000 per cubic centimeter; in forty-two from 10,000,000 to 50,000,000 per cubic centimeter. In three specimens it exceeded 50,000,000 per cubic centimeter, and in five no count was made.

TABLE NO. 9—*Comparison Between Milk Collected at Railroad Stations During the First Six Months and that During the Latter Six Months.*

BACTERIAL COUNT.	January to June.			July to December.		
	Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.		Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.	
1 to 10,000	5	0	0.0%	6	0	0.0%
10,000 to 50,000	30	6	20.0%	23	3	13.0%
50,000 to 100,000	33	5	15.1%	30	8	26.6%
100,000 to 500,000	84	20	23.8%	71	31	43.6%
500,000 to 1,000,000	27	13	48.1%	49	32	65.3%
1,000,000 to 10,000,000	73	54	73.9%	164	155	94.5%
10,000,000 to 50,000,000	6	5	83.3%	36	35	97.0%
Over 50,000,000	0	0	0.0%	3	3	100.0%
No count made	0	0	0.0%	5	1	20.0%
Total	258	103	39.9%	387	268	69.2%

TABLE NO. 10—*Comparison Between Milk Collected at Railroad Stations During the Year and that Collected During July, August and September.*

BACTERIAL COUNT.	January to December.			July, August and September.		
	Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.		Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.	
1 to 10,000	11	0	0.0%	1	0	0.0%
10,000 to 50,000	53	9	16.9%	1	0	0.0%
50,000 to 100,000	63	13	20.6%	6	4	66.6%
100,000 to 500,000	155	51	32.9%	36	20	55.5%
500,000 to 1,000,000	76	45	59.2%	29	26	89.6%
1,000,000 to 10,000,000	237	209	88.1%	123	120	97.5%
10,000,000 to 50,000,000	42	40	95.2%	30	30	100.0%
Over 50,000,000	3	3	100.0%	2	2	100.0%
No count made	5	1	20.0%	5	1	20.0%
Total	645	371	57.5%	233	203	87.1%

TABLE NO. 11—*Showing Percentage of Samples Collected from Railroad Stations in Which the Bacterial Count is Below* 500,000.

BACTERIAL COUNT	January to June.		July to December.		July, August and September.		January to December.	
	Number of Samples.	Percentage.	Number of Samples.	Percentage.	Number of Samples.	Percentage.	Number of Samples.	Percentage.
Under 500,000 per c. c.	152	58.9	130	33.5	44	18.8	282	43.7
Over 500,000 per c. c.	106	41.0	257	66.4	189	81.1	363	56.2

These tables show the same frequency of high bacterial counts and positive colon tests during the warm months.

TABLE NO. 12—*Comparison of Milk from Dairies, Wagons and Shops With that from Railroad Stations.*

BACTERIAL COUNT.	Dairies, Wagons and Shops. January to December.			Railroad Stations. January to December.		
	Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.		Number of Examinations.	Colon Bacillus present in 1-1,000 c. c.	
1 to 10,000	3	0	0.0%	11	0	0.0%
10,000 to 50,000	8	1	12.5%	53	9	16.9%
50,000 to 100,000	16	4	25.0%	63	13	20.6%
100,000 to 500,000	113	45	39.8%	155	51	32.9%
500,000 to 1,000,000	67	44	65.6%	76	45	59.2%
1,000,000 to 10,000,000	277	236	85.2%	237	209	88.1%
10,000,000 to 50,000,000	55	2	94.5%	42	40	95.2%
Over 50,000,000	2	2	100.0%	3	3	100.0%
No count made	3	1	33.3%	5	1	20.0%
Total	544	385	70.7%	645	371	57.5%

TABLE NO. 13—*Comparison Between Milk from Dairies, Wagons and Shops, and that from Railroad Stations, Showing Percentage in Which the Bacterial Count is Below* 500,000.

BACTERIAL COUNT.	Dairies, Wagons and Shops. January to December.		Railroad Stations. January to December.	
	Number of Samples.	Percentage.	Number of Samples.	Percentage.
Under 500,000 per c. c....	140	25.7	282	43.7
Over 500,000 per c. c....	404	74.2	363	56.2

These tables show a greater frequency of high bacterial counts and positive colon tests from the dairies, wagons and shops than from the railroad stations, showing the deterioration after reaching the retail dealer.

TABLE No. 14—*Results by Months of the Examination of Milk Collected from Railroad Stations.*

MONTHS.	Number of Examinations.	Colon Bacillus Present.		Number of Examinations.	Average Bacterial Count.
January	27	6	22.2%	27	778,444
February	42	12	28.5%	42	663,333
March	26	2	7.6%	26	130,000
April	45	8	17.7%	45	348,000
May	48	27	56.2%	48	1,677,708
June	70	48	68.5%	70	4,078,571
July	73	69	94.5%	71	8,121,690
August	72	65	90.2%	69	3,379,558
September	88	69	78.4%	88	4,140,113
October	95	56	58.9%	95	2,363,191
November	.....	.....	.....	147	*367,619
December	59	9	15.4%	59	721,016
Total	645	371	57.5%	787	2,444,012

*This average is based only on samples collected during a milk contest and is, therefore, below that for the same month of former years.

TABLE NO. 15—*Results by Months of the Examination of Milk Collected from Dairies, Wagons and Shops.*

MONTHS.	Number of Examinations.	Colon Bacillus Present.		Number of Examinations.	Average Bacterial Count.
January	30	17	56.6%	30	2,796,666
February	29	9	31.0%	28	896,071
March	13	4	30.7%	13	761,538
April	72	34	47.2%	71	1,917,887
May	39	26	66.6%	39	2,308,205
June	65	47	72.3%	65	2,793,384
July	71	66	92.9%	71	8,812,253
August	47	46	97.8%	46	7,667,555
September	72	65	90.2%	72	5,171,126
October	44	42	95.4%	44	3,436,818
November	10	6	60.0%	10	2,474,000
December	52	23	44.2%	52	1,833,461
Total	544	385	70.7%	541	3,947,892

TABLE No. 16—*Results by Months of the Examination of Milk Collected from Stations, Dairies, Wagons and Shops.*

MONTHS.	Number of Examinations.	Colon Bacillus Present.		Number of Examinations.	Average Bacterial Count.
January	57	23	40.3%	57	1,840,666
February	71	21	29.5%	70	756,285
March	39	6	15.3%	39	340,512
April	117	42	35.8%	116	1,308,879
May	87	53	60.9%	87	1,960,341
June	135	95	70.3%	135	3,459,777
July	144	135	93.7%	142	8,466,971
August	119	111	93.2%	115	4,998,695
September	160	134	83.7%	160	4,565,500
October	139	98	70.5%	139	2,686,043
November	10	6	60.0%	157	*501,783
December	111	32	28.8%	111	1,242,162
Total	1,189	756	63.5%	1,328	3,056,662

*This includes 147 samples collected during milk contest and is, therefore, lower than in previous years.

These tables show a much higher bacterial count during the summer months and emphasize the importance of proper refrigeration.

PASTEURIZED MILK.

We have examined during 1911 one hundred samples of pasteurized milk collected by our inspector from the several dairies about town that submit their milk to this process. In the 100 specimens seventy-one, or 71 per cent., contained the colon bacillus in one cubic centimeter and forty-four, or 44 per cent., showed this organism in 0.1 cubic centimeter. The average bacterial count for the 100 samples was 38,800 per cubic centimeter.

TABLE No. 17—*Comparison of Bacterial Reduction by the Rapid Method With that by the Slow Method of Pasteurization.**

Rapid Method.		Slow Method.	
Bacterial Count Before Pasteurization.	Bacterial Count After Pasteurization.	Bacterial Count Before Pasteurization.	Bacterial Count After Pasteurization.
4,061,430 per Cubic Centimeter.	42,660 per Cubic Centimeter, 1.0%.	3,220,130 per Cubic Centimeter.	38,250 per Cubic Centimeter, 1.1%.

*The temperature of the rapid method varied from 158° to 165° F., and the time of exposure was about five minutes. The slow method was about 142° F. for twenty-five minutes.

TABLE No. 18—*Bacterial Reduction by Both Forms of Pasteurization.*

Before Pasteurization.	After Pasteurization.
Bacterial Count 3,402,270 per Cubic Centimeter.	Bacterial Count 38,800 per Cubic Centimeter 1.1%.

TABLE No. 19—*Showing Percentage of Colon Bacilli Present Before and After Pasteurization.*

Rapid Method.						Slow Method.					
Number of Examinations.	Colon Bacillus Present Before Pasteurization in 0.001 c. c.		Colon Bacillus Present After Pasteurization in 1 c. c.		Colon Bacillus Present After Pasteurization in 0.1 c. c.	Number of Examinations.	Colon Bacillus Present Before Pasteurization in 0.001 c. c.		Colon Bacillus Present After Pasteurization in 1 c. c.		Colon Bacillus Present After Pasteurization in 0.1 c. c.
21	17	80.9%	14	66.6%	5 23.8%	79	60	75.9%	57	72.1%	39 49.3%

It will be seen that both methods of pasteurization cause approximately a reduction of 99 per cent. in the bacteria present.

TABLE No. 20—*Comparison of Bacterial Reduction by the Rapid Method With that by the Slow Method of Pasteurization Based on Examinations Made in* 1909 *to* 1911, *Inclusive.*

*Rapid Method.		†Slow Method.	
Bacterial Count Before Pasteurization.	Bacterial Count After Pasteurization.	Bacterial Count Before Pasteurization.	Bacterial Count After Pasteurization.
2,763,000 per Cubic Centimeter.	17,100 per Cubic Centimeter, 0.6%	2,361,100 per Cubic Centimeter.	22,490 per Cubic Centimeter, 0.9%

*Based on 96 examinations.
†Based on 147 examinations.

TABLE NO. 21—*Bacterial Reduction by Both Forms of Pasteurization, Based on 243 Examinations Made in 1909 to 1911, Inclusive.*

Before Pasteurization.	After Pasteurization.
Bacterial Count 2,542,000 per Cubic Centimeter.	Bacterial Count 20,000 per Cubic Centimeter. 0.8%.

TABLE NO. 22—*Showing Percentage of Cases in Which Colon Bacilli Were Present Before and After Pasteurization.*

Rapid Method.				Slow Method.			
Number of Examinations.	Colon Bacillus Present Before Pasteurization in 0.001 c. c.		Colon Bacillus Present After Pasteurization in 1 c. c.	Number of Examinations.	Colon Bacillus Present Before Pasteurization in 0.001 c. c.		Colon Bacillus Present After Pasteurization in 1 c. c.
96	45	46.8%	48 50.0%	147	87	59.1%	87 59.1%
Number of Examinations.	Colon Bacillus present Before Pasteurization in 0.001 c. c.		Colon Bacillus present After Pasteurization in 1 c. c.	Number of Examinations.	Colon Bacillus present Before Pasteurization in 0.001 c. c.		Colon Bacillus present After Pasteurization in 1 c. c.
33	22	66.6%	7 21.2%	94	69	73.4%	42 44.6%

TABLE No. 23—*Showing Percentage of Colon Bacilli Present Before and After Pasteurization by Both Methods.*

Number of Examinations.	Colon Bacillus Present Before Pasteurization in 0.001 c. c.		Colon Bacillus Present After Pasteurization in 1 c. c.		Number of Examinations.	Colon Bacillus Present Before Pasteurization in 0.001 c. c.		Colon Bacillus Present After Pasteurization in 0.1 c. c.	
243	132	54.3%	135	55.5%	127	91	71.6%	49	38.5%

COMPARISON BETWEEN BACTERIAL CONTENT OF MILK AND DEATHS FROM INTESTINAL DISEASES OF CHILDREN UNDER TWO YEARS OF AGE.

The total number of bacteria present in the milk during the different months has been estimated and the average for each month is then compared with the infant mortality from intestinal diseases for that month. The following tables will show the average bacterial content and the deaths from intestinal diseases during the twelve months of the year for 1906, 1907, 1908, 1909, 1910 and 1911.

Deaths from Intestinal Diseases and Bacterial Content of Milk for 1906.

MONTHS.	Average Bacteria.	Deaths from Intestinal Diseases.
January	1,000,000	7
February	2,070,000	8
March	1,900,000	8
April	930,000	9
May	5,000,000	8
June	4,000,000	28
July	10,000,000	244
August	23,000,000	235
September	15,000,000	125
October	10,000,000	48
November	4,100,000	17
December	1,800,000	16

Deaths from Intestinal Diseases and Bacterial Content of Milk for 1907.

Months.	Average Bacteria.	Deaths from Intestinal Diseases.
January	6,200,000	5
February	3,600,000	6
March	1,100,000	4
April	2,800,000	2
May	3,400,000	14
June	4,000,000	70
July	5,000,000	269
August	5,500,000	121
September	14,000,000	77
October	7,000,000	37
November	4,800,000	11
December	3,800,000	7

Deaths from Intestinal Diseases and Bacterial Content of Milk for 1908.

Months.	Average Bacteria.	Deaths from Intestinal Diseases.
January	1,000,000	9
February	2,200,000	8
March	5,100,000	12
April	1,100,000	8
May	6,000,000	15
June	5,000,000	86
July	6,000,000	246
August	7,400,000	114
September	3,200,000	54
October	2,100,000	27
November	1,500,000	11
December	700,000	1

Deaths from Intestinal Diseases and Bacterial Content of Milk for 1909.

Months.	Average Bacteria Station Milk.	Average Bacteria Store and Wagon Milk.	Average Bacteria for Both.	Deaths From Intestinal Diseases.
January	2,058,000	2,760,000	2,356,000	6
February	1,851,000	1,461,000	1,758,000	7
March	740,000	1,729,000	1,010,000	7
April	861,000	718,000	852,000	11
May	1,320,000	1,120,000	1,288,000	11
June	1,140,000	2,800,000	1,357,000	52
July	6,820,000	5,497,000	6,269,000	188
August	3,988,000	8,414,000	5,748,000	136
September	4,920,000	9,314,000	6,441,000	19
October	1,432,000	3,387,000	2,326,000	9
November	1,086,000	2,701,000	1,795,000	7
December	592,000	924,000	709,000	5

Deaths from Intestinal Diseases and Bacterial Content of Milk for 1910.

Months.	Average Bacteria Station Milk.	Average Bacteria Store and Wagon Milk.	Average Bacteria for Both.	Deaths From Intestinal Diseases.
January	2,680,000	2,858,000	2,831,500	10
February	787,200	1,373,000	1,013,400	7
March	901,100	1,163,400	975,400	6
April	696,500	4,220,100	2,046,500	11
May	1,693,500	2,302,600	1,983,900	12
June	2,759,700	1,722,700	2,600,000	50
July	3,592,300	15,000,000	4,298,000	187
August	7,780,000	9,310,900	8,666,300	143
September	2,946,500	5,673,750	4,377,200	79
October	2,208,700	2,305,000	2,236,600	58
November	623,750	3,060,000	1,204,000	27
December	925,300	1,882,100	1,444,600	8

Deaths from Intestinal Diseases and Bacterial Content of Milk for 1911.

Months.	Average Bacteria Station Milk.	Average Bacteria Store and Wagon Milk.	Average Bacteria for Both.	Deaths from Intestinal Diseases.
January	778,444	2,796,666	1,840,666	16
February	663,333	896,071	756,285	11
March	130,000	761,538	340,512	15
April	348,000	1,917,887	1,308,879	9
May	1,677,708	2,308,205	1,960,341	32
June	4,078,571	2,793,384	3,459,777	26
July	8,121,690	8,812,253	8,466,971	199
August	3,379,558	7,667,555	4,998,695	125
September	4,140,113	5,171,126	4,565,500	79
October	2,363,191	3,436,818	2,686,043	37
November	367,619*	2,474,000	501,783†	15
December	721,016	1,833,461	1,242,162	4

*This average is based only on samples collected during a milk contest and is, therefore, much lower than for other years.

†This average is largely based on milk collected during a milk contest and is, therefore, much lower than for former years.

The average bacterial count from the milk collected from the stores and wagons is always greater than the average from the milk collected from the railroad stations, and the infant mortality shows a general correspondence to the bacterial count, the high mortality being in those months which show the highest bacterial count. Of course, the infant mortality also has a direct relationship with the average mean monthly temperature and these two influences usually acting together account for the high infant mortality during July, August and September.

Chart No. 1 shows the bacterial count, the infant mortality, and the mean average monthly temperature based on an average for five years ending with 1910. The average number of bacteria in the milk has undergone a steady decrease since

1906 and the yearly averages computed for 1906, 1907, 1908, 1909, 1910 and 1911 are set forth in the following table. The average for 1911 shows a slight increase over 1910, but this is the only exception to the general rule.

Average bacterial count for 1906	5,100,000
Average bacterial count for 1907	5,800,000
Average bacterial count for 1908	3,400,000
Average bacterial count, station samples for 1909	2,081,000
Average bacterial count, store and wagon samples, 1909	3,596,000
Average bacterial count for both, 1909	2,584,000
Average bacterial count, station samples for 1910	1,866,300
Average bacterial count, store and wagon samples, 1910	3,690,450
Average bacterial count for both, 1910	2,565,500
Average bacterial count, station samples for 1911	2,444,012
Average bacterial count, store and wagon samples, 1911	3,947,892
Average bacterial count for both, 1911	3,056,662

During the years 1906, 1907 and 1908 specimens of milk were collected with few exceptions during the latter half of the year, entirely from various railroad stations. Therefore, in comparing the average bacterial counts for 1909 and 1910 with the counts for the three preceding years it will be necessary to use the average count for samples obtained from the railroad stations. This shows a decrease of a million and a half bacteria as compared with 1908 and of between three and four millions as compared with the years 1906 and 1907. The year 1911 shows a difference of about two million bacteria as compared with 1906 and 1907, is about equal to 1908 and is about 500,000 more when compared with 1909 and 1910.

The general decrease in the average number of bacteria in the milk is probably due to the popular agitation concerning pure milk, the enforcement of the ordinance which regulates the proper refrigeration of milk after it has reached the city, its proper handling and refrigeration in the stores, wagons and shops, and the gradual instruction of the producer by

means of letters and linen posters. The increase during 1911 is probably due to the very hot summer.

In 1906 the milk received at the laboratory showed 41.1 per cent. below 500,000 bacteria per cubic centimeter; in 1907 the percentage was 45; in 1908 it was 37 per cent.; in 1909 it was 57.2 per cent.; in 1910 it was 52.4 per cent.; but in 1911 it again fell to 35.4 per cent.

EXAMINATIONS FOR PUS AND STREPTOCOCCI.

During the year we made 144 examinations by means of the Slack method to determine pus cells and leucocytes in milk obtained from the various railroad stations. In one sample the pus cells were over 25 per immersion field and streptococci were present. Such a high count indicates the necessity for the inspection of the dairy farm for cases of garget which are produced by the Streptococcus lacticus. A further description of the work done by this Department in past years on this subject will be seen in the report for 1910 and in various other former reports.

EXAMINATION OF ICE CREAM.

The following shows in tabulated form the results of the examination of ice cream:

Examination of Ice Cream.

No.	Months.	Bacteria per c. c.	Colon Bacillus in 1/1,000 c. c.
1	January	12,000,000	Present
2	January	6,000,000	Present
3	January	6,000,000	Present
4	January	4,800,000	Present
5	January	30,000	Not found
6	January	200,000	Not found
7	January	600,000	Not found
8	January	80,000	Not found
9	January	100,000	Not found
10	January	3,600,000	Present
11	January	12,000,000	Present
12	January	1,200,000	Not found
13	January	24,000,000	Present
14	February	No count made.	Present
15	February	No count made.	Present
16	February	No count made.	Present
17	February	24,000,000	Present
18	February	No count made.	Present
19	February	2,400,000	Present
20	February	36,000,000	Present
21	February	18,000,000	Present
22	March	5,000,000	Not found
23	March	3,600,000	Not found
24	March	9,000,000	Not found
25	March	3,600,000	Not found
26	March	1,200,000	Present
27	March	5,400,000	Present
28	March	6,000,000	Present
29	March	1,500,000	Present
30	March	18,000,000	Present
31	March	18,000,000	Present
32	March	18,000,000	Present
33	March	15,000,000	Present
34	April	4,800,000	Not found
35	April	1,200,000	Not found
36	April	4,800,000	Not found
37	April	360,000	Not found
38	April	15,000,000	Present

Examination of Ice Cream.—Continued.

No.	Months.	Bacteria per c. c.	Colon Bacillus in 1/1,000 c. c.
39	April	6,000,000	Present
40	April	1,800,000	Present
41	April	4,200,000	Present
42	April	3,000,000	Present
43	April	2,500,000	Present
44	April	5,000,000	Present
45	April	4,000,000	Present
46	April	9,600,000	Not found
47	April	15,000,000	Not found
48	April	9,600,000	Not found
49	April	12,000,000	Not found
50	April	5,000,000	Not found
51	April	3,000,000	Present
52	April	480,000	Present
53	April	2,400,000	Present
54	April	2,100,000	Not found
55	May	9,000,000	Present
56	May	1,500,000	Present
57	May	4,800,000	Present
58	May	50,000,000	Present
59	May	18,000,000	Present
60	May	3,000,000	Present
61	May	900,000	Not found
62	May	3,300,000	Not found
63	May	2,700,000	Present
64	May	5,100,000	Present
65	May	15,000,000	Not found
66	May	36,000,000	Present
67	May	12,000,000	Present
68	May	15,000,000	Present
69	May	120,000	Not present
70	May	3,600,000	Present
71	May	.....	.....
72	May	3,500,000	Present
73	May	12,000,000	Present
74	May	9,000,000	Present
75	May	12,000,000	Present
76	May	18,000,000	Present
77	May	7,200,000	Present
78	May	6,000,000	Present
79	May	27,000,000	Present
80	May	15,000,000	Present
81	May	6,000,000	Present
82	May	600,000	Present
83	May	7,200,000	Present

Examination of Ice Cream.—Continued.

No.	Months.	Bacteria per c. c.	Colon Bacillus in 1/1,000 c. c.
84	May	6,000,000	Present
85	May	12,000,000	Present
86	June	18,000,000	Present
87	June	18,000,000	Present
88	June	36,000,000	Present
89	June	36,000,000	Present
90	June	24,000,000	Present
91	June	24,000,000	Present
92	June	24,000,000	Present
93	June	4,500,000	Present
94	June	18,000,000	Present
95	June	21,000,000	Present
96	June	18,000,000	Present
97	June	12,000,000	Present
98	June	36,000,000	Present
99	June	6,000,000	Present
100	June	100,000	Not found
101	June	21,000,000	Present
102	June	21,000,000	Present
103	June	30,000,000	Present
104	June	24,000,000	Present
105	June	15,000,000	Present
106	June	10,000,000	Present
107	June	14,000,000	Present
108	June	9,000,000	Present
109	June	15,000,000	Present
110	June	6,000,000	Present
111	June	10,200,000	Present
112	June	15,000,000	Present
113	June	6,000,000	Present
114	June	15,000,000	Present
115	July	12,000,000	Present
116	July	7,500,000	Present
117	July	3,750,000	Present
118	July	3,000,000	Present
119	July	12,000,000	Present
120	July	12,000,000	Present
121	July	7,200,000	Present
122	July	12,000,000	Present
123	July	18,000,000	Present
124	July	6,000,000	Present
125	July	10,800,000	Present
126	July	18,000,000	Present
127	July	15,000,000	Present
128	July	7,800,000	Present

Examination of Ice Cream.—Continued.

No.	Months.	Bacteria per c. c.	Colon Bacillus in 1/1,000 c. c.
129	July	7,200,000	Present
130	August	9,000,000	Present
131	August	4,800,000	Present
132	August	6,000,000	Present
133	August	6,000,000	Present
134	August	15,000,000	Present
135	August	4,800,000	Present
136	August	12,000,000	Present
137	August	6,000,000	Present
138	August	7,200,000	Present
139	August	15,000,000	Present
140	August	15,000,000	Present
141	September	6,000,000	Present
142	September	7,200,000	Present
143	September	15,000,000	Present
144	September	12,000,000	Present
145	September	9,000,000	Present
146	September	9,000,000	Present
147	September	1,500,000	Present
148	September	18,000,000	Present
149	September	12,000,000	Present
150	September	2,400,000	Present
151	September	18,000,000	Present
152	September	3,000,000	Present
153	September	1,500,000	Present
154	September	1,500,000	Present
155	September	3,000,000	Present
156	September	3,600,000	Present
157	September	5,400,000	Present
158	September	3,600,000	Present
159	September	7,200,000	Present
160	September	7,200,000	Present
161	September	6,000,000	Present
162	September	9,000,000	Present
163	September	30,000,000	Present
164	September	9,000,000	Present
165	September	15,000,000	Present
166	September	5,400,000	Present
167	September	6,000,000	Present
168	September	24,000,000	Present
169	September	9,000,000	Present
170	September	15,000,000	Present
171	September	9,600,000	Present
172	September	12,000,000	Present
173	September	9,600,000	Present

Examination of Ice Cream.—Continued.

No.	Months.	Bacteria per c. c.	Colon Bacillus in 1/1,000 c. c.
174	October	10,500,000	Present
175	October	6,000,000	Not found
176	October	12,000,000	Present
177	October	2,400,000	Present
178	October	900,000	Present
179	October	No count made.	Present
180	October	6,000,000	Not found
181	October	4,800,000	Present
182	October	1,500,000	Not found
183	October	350,000	Not found
184	October	700,000	Not found
185	October	400,000	Not found
186	October	450,000	Not found
187	October	150,000	Not found
188	October	500,000	Not found
189	November	900,000	Present
190	November	6,000,000	Present
191	November	3,600,000	Not found
192	November	4,800,000	Present
193	November	1,500,000	Present
194	November	350,000	Not found
195	November	9,000,000	Not found
196	November	9,000,000	Present
197	November	9,000,000	Not found
198	November	16,000,000	Not found
199	November	24,000,000	Not found
200	November	3,600,000	Not found
201	November	12,000,000	Not found
202	November	15,000,000	Not found
203	November	15,000,000	Not found
204	November	18,000,000	Present
205	November	3,000,000	Present
206	November	2,400,000	Present
207	November	2,400,000	Present
208	November	600,000	Present
209	November	3,300,000	Present
210	November	900,000	Present
211	November	2,100,000	Not found
212	November	6,000,000	Not found
213	November	6,000,000	Not found
214	November	9,000,000	Not found
215	November	18,000,000	Not found
216	November	4,500,000	Not found
217	December	3,300,000	Not found
218	December	2,100,000	Not found

Examination of Ice Cream.—Concluded.

No.	Months.	Bacteria per c. c.	Colon Bacillus in 1/1,000 c. c.
219	December	2,400,000	Not found
220	December	6,600,000	Not found
221	December	4,000,000	Not found
222	December	750,000	Not found
223	December	400,000	Not found
224	December	700,000	Not found
225	December	300,000	Not found
226	December	1,800,000	Present
227	December	700,000	Not found
228	December	2,100,000	Present
229	December	1,800,000	Not found
230	December	1,800,000	Present

During the year we made 230 bacteriological examinations of ice cream, including the numerical estimate of the bacteria per cubic centimeter and the test for the presence of the colon bacillus in 1/1000 of a cubic centimeter. Of the 230 specimens 169, or 73.4 per cent., showed the presence of the colon bacillus. In the four specimens of ice cream containing from 10,000 to 100,000 bacteria per cubic centimeter the colon bacillus was not found. In specimens between 100,000 and 500,000 the colon bacillus was found once and not found eleven times, a percentage of 8.3 and 91.6, respectively. In samples between 500,000 and 1,000,000 the colon bacillus was found five times and not found five times, a percentage of 50.0 in each case. In specimens varying from 1,000,000 to 10,000,000 the colon bacillus was found in eighty-seven, or 73.1 per cent.; not found in thirty-two, or 26.8 per cent. In those varying from 10,000,000 to 25,000,000 it was present in sixty-two, or 87.3 per cent.; not found in nine, or 12.6 per cent. In those varying from 25,000,000 to 50,000,000 the colon bacillus was found in nine, or 100 per cent. In five other specimens no bacterial count was made and the colon bacillus was found in all of these.

In four specimens the bacteria varied from 10,000 to 100,000; in twelve samples they varied from 100,000 to 500,000; in ten from 500,000 to 1,000,000; in 119 from 1,000,000 to 10,000,000; in seventy-one from 10,000,000 to 25,000,000; in nine from 25,000,000 to 50,000,000. In five specimens no count was made. There were no specimens containing more than 50,000,000 bacteria per cubic centimeter. Of the 230 examinations made twenty-six, or 11.3 per cent., contained fewer than 1,000,000, and 204, or 88.6 per cent., contained more than 1,000,000 bacteria per cubic centimeter.

TABLE No. 24—*Comparing Ice Cream for Different Seasons.*

BACTERIAL COUNT.	January to March.		April to June		July to September.		October to December.	
	Number of Examinations.	Colon Bacillus Present in 1-1,000 c. c. (Per Cent.).	Number of Examinations.	Colon Bacillus Present in 1-1,000 c. c. (Per Cent.).	Number of Examinations.	Colon Bacillus Present in 1-1,000 c. c. (Per Cent.).	Number of Examinations.	Colon Bacillus Present in 1-1,000 c. c. (Per Cent.).
10,000 to 100,000.....	3	0.0	1	0.0	0	.....	0	.....
100,000 to 500,000.....	1	0.0	3	33.3	0	.....	8	0.0
500,000 to 1,000,000.....	1	0.0	2	50.0	0	.....	7	57.1
1,000,000 to 10,000,000..	12	58.3	38	78.9	37	100.0	32	40.6
10,000,000 to 25,000,000.	11	100.0	30	90.0	21	100.0	9	33.3
25,000,000 to 50,000,000.	1	100.0	7	100.0	1	100.0	0	.....
No count.....	4	100.0	0	.....	0	.....	1	100.0
Total.....	33	69.6	81	81.4	59	100.0	57	36.8

TABLE NO. 25—*Showing Percentage of Ice Cream Collected During the Various Seasons in Which the Bacterial Count is Under* 1,000,000 *per Cubic Centimeter.*

BACTERIAL COUNT.	January to March.		April to June.		July to September.		October to December.	
	Number of Examinations.	Percentage.	Number of Examinations.	Percentage.	Number of Examinations.	Percentage.	Number of Examinations.	Percentage.
Under 1,000,000.....	5	15.1	6	7.4	0	0.0	15	26.3
Over 1,000,000.....	28	84.8	75	92.5	59	100.0	42	73.6

THE EXAMINATION OF RAW FOODS.

During the year we examined fifty-nine specimens of oysters in the shell from various sources and the colon bacillus was found in one cubic centimeter of the shell water in twenty-four, or 40.6 per cent. From these same fifty-nine oysters we isolated the colon bacillus five times, or in 8.4 per cent. in 0.1 cubic centimeter of shell water, but failed to find it in 0.01 cubic centimeter in any case. We also examined six specimens of shucked oysters from various local dealers and found the colon bacillus present in all six specimens in one cubic centimeter, but failed to find it in any of the specimens in 0.1 or 0.01 cubic centimeters. Seventy-seven clams were examined during the year, of which eleven, of 14.2 per cent., contained the colon bacillus in one cubic centimeter of the shell water; three, or 3.8 per cent., showed this organism in 0.1 cubic centimeter, and none in 0.01 cubic centimeter of the juice. Altogether

we examined 142 shellfish, of which forty-one, or 21.8 per cent., showed the presence of the colon bacillus in one cubic centimeter; eight, or 5.6 per cent., in 0.1 cubic centimeter and none in 0.01 cubic centimeter of shell water. The number of bacteria per cubic centimeter in the juice of the oysters in the shell varied from 12 to 240,000; that of the clams from 1 to 3,000; and that of the shucked oysters from 21,000 to 420,000. The average bacterial count for the oysters in the shell was 5,130, for the clams 335, and for the shucked oysters 238,500 per cubic centimeter. The average bacterial count for both the oysters and clams in the shell was 2,395 per cubic centimeter. Of the twenty-four oysters in the shell showing the presence of the colon bacillus in one cubic centimeter of the shell water one, or 4.1 per cent., had a bacterial count between 1 and 500 per cubic centimeter; two, or 8.2 per cent., between 500 and 1,000; two, or 8.2 per cent., between 1,000 and 5,000; four, or 16.6 per cent., between 5,000 and 10,000; ten, or 40.1 per cent., between 10,000 and 25,000; four, or 16.6 per cent., between 25,000 and 50,000; none between 50,000 and 100,000, and one, or 4.1 per cent., over 100,000 per cubic centimeter. Of the five oysters showing the presence of the colon bacillus in 0.1 cubic centimeter of juice none had a count less than 1,000; one, or 20 per cent., had a bacterial count between 1,000 and 5,000; one, or 20 per cent., between 5,000 and 10,000; and three, or 60 per cent., between 10,000 and 25,000 per cubic centimeter. Of the eleven clams showing the presence of the colon bacillus in one cubic centimeter of the shell water six, or 54.5 per cent., had a bacterial count between 1 and 500; none between 500 and 1,000; four, or 36.3 per cent., between 1,000 and 5,000; none between 5,000 and 10,000; none between 10,000 and 25,000; and one, or 9.0 per cent., between 25,000 and 50,000 per cubic centimeter. Of the three clams showing the B. coli in 0.1 cubic centimeter none had a bacterial count below 1,000; two, or 66.6 per cent., had a count between 1 and 5,000; and one, or 33.3 per cent., had a count between 25,000 and 50,000.

TABLE NO. 26—*Showing in Detail the Bacterial Count for Oysters and Clams.*

BACTERIA PER CUBIC CENTIMETER.	Oysters.	Clams.
1 to 100	0	11
100 to 200	2	4
200 to 300	2	5
300 to 400	2	2
400 to 500	0	1
500 to 1,000	5	8
1,000 to 2,000	4	11
2,000 to 3,000	4	14
3,000 to 4,000	0	3
4,000 to 5,000	4	4
5,000 to 10,000	8	9
10,000 to 15,000	11	3
15,000 to 25,000	10	1
25,000 to 50,000	5	1
50,000 to 100,000	0	0
Over 100,000	2	0

TABLE NO. 27—*Oysters.*

YEAR.	Number of Examinations.	Colon Bacillus Present (Percentage).			Number of Bacterial Counts.	Average Bacterial Count.
		1 c. c.	0.1 c. c.	0.01 c. c.		
1907	90	35.5	.....	.....	33	1,150
1908	26	34.6	.....	.....	24	820
1909	87	37.9	.....	.....	81	1,540
1910	140	39.2	12.8	.....	126	2,566
1911	59	40.6	8.4	0.0	59	5,130
5 years	402	38.0	5.7	.....	323	2,487

TABLE No. 28—*Clams.*

YEAR.	Number of Examinations.	Colon Bacillus Present (Percentage).			Number of Bacterial Counts.	Average Bacterial Count.
		1 c. c.	0.1 c. c.	0.01 c. c.		
1907	25	28.0	.....	.....	5	1,840
1908	4	25.0	.....	.....	4	2,945
1909	33	36.0	.....	.....	31	999
1910	10	10.0	.....	.....	9	816
1911	77	14.2	3.8	0.0	77	335
5 years	149	21.4	.....	.....	126	671

In addition to the B. coli, we have obtained a number of other intestinal fermentative bacteria from our cultures made from oysters. These include such organisms as the Bacillus proteus, Bacillus cloacae, Bacillus enteritidis and Bacillus gasoformans. This latter organism differs from the other fermentative bacteria mentioned in producing from 80 to 100 per cent. of gas in dextrose, lactose and saccharose bouillon. The importance of these organisms in the production of certain forms of food poisoning is now well recognized.

From what has been stated above it can be seen that our market oysters at times show traces of intestinal pollution. This probably does not mean that many of the beds themselves are polluted, as the Virginia Oyster Commission has shown that the majority of the oyster beds in the large rivers and in the Chesapeake Bay are free from sewage contamination. These findings indicate, however, that some of the oysters which come to our market have been fattened in fresh water, which may be near some town or city which discharges its sewage into the water where the fattening is carried out. The process of fattening, drinking or floating oysters in fresh water in order to increase their bulk should be carefully investigated, and if these oysters are being polluted in sewage-

contaminated waters the practice should be prohibited. The only way to settle this question of polluted oysters is to make a careful examination of the oyster beds and the oysters therefrom. This will probably demonstrate that in the vast majority of cases the beds are not situated near the discharging point of large bodies of sewage and that the oysters are free from intestinal pollution. It may also demonstrate that a few of the oyster beds are situated too near the sewage outlets of cities and towns, which outlets empty directly into the bay or one of its tributaries.

In interpreting the results of the examination of shellfish we have a problem of some difficulty. Sources which are naturally free from chance pollution are rare, and we might, therefore, occasionally find the colon bacillus in specimens from sources which ordinarily are safe. Mr. Gage, of the Lawrence Experiment Station, considers that if the examination of a sufficient number of samples from the natural bar shows that the colon bacillus is absent in 80 per cent. of the samples, shellfish from such a source can be considered safe for consumption. If, on the other hand, 50 per cent. or more of the specimens show the presence of the B. coli, this can be considered as evidence of serious pollution of the natural bed. However, he states that in the vast majority of the cases the percentage of samples in which the colon bacillus is present will fall between these two limits, and our results have been in consonance with this statement. The interpretation of results in this last case can not be made by any hard and fast rules, it being a question which can only be decided by making a sanitary survey of the natural bars in conjunction with a bacteriological examination of a number of specimens from such sources. Again referring to the interpretation of results of the examination of shellfish, the following quotation from the preliminary report of the Committee on Standard Methods of Shellfish Examination of the American Public Health Association would seem pertinent: "The committee believe that

the results of bacteriological examinations should not be used as the sole basis for the interpretation of the sanitary quality of shellfish. The results of the sanitary survey should in all cases be considered of at least equal importance. We are not prepared to give expression of opinion at this time to any definite numerical relation between the various factors involved in the bacteriological results, nor in the sanitary survey. The committee believe that with the additional information which it expects will be available during the year, it will be possible to express with some definiteness these relations by means of the score-card system."

Ice.—We examined bacteriologically forty-six samples of ice. The colon bacillus was found in ten cubic centimeters of melted ice three times and in one cubic centimeter three times. The average bacterial count for the forty-six specimens was 168 per cubic centimeter.

CLERICAL DEPARTMENT.

The clerical department under the supervision of Mr. Harry J. Campbell has submitted the report of the routine examinations of specimens for physicians and the result of immunizing and treating cases with antitoxin, as seen in Tables Nos. 29 and 30. The laboratory examinations have increased from 11,920 in 1906 to 20,431 in 1911. The results in the treatment and immunization of patients during previous years is given in the report for 1910, and during the year 1911 we treated 553 cases of diphtheria with only thirty-eight deaths, a mortality of 6.8 per cent. In 257 of these cases diphtheria bacillus was demonstrated by a culture and in these cases there was a mortality of 14.7 per cent. Most of these were deaths due to laryngeal diphtheria. Two hundred and sixty-three persons in infected houses were immunized with the diphtheria antitoxin and only two developed diphtheria. The various results of the work with antitoxin are set forth in Table No. 30.

Chart No. 2 shows the gradual and striking reduction in the number of diphtheria cases reported to the Department in each current year from 1898 to 1911. There has been a moderate rise in the number of cases during 1911, but the chart itself shows that the number of cases have fluctuated from year to year, the gradual tendency, however, having been downwards.

Chart No. 3 shows the great increase in the number of cases of diphtheria during the school months. This can be accounted for by the mingling of large numbers of children in the schools, some of whose throats contain diphtheria bacilli and also by the fact that during these months the children develop more frequently the various inflammatory conditions of the nose and throat owing to the cold and inclement weather. It would seem that an investigation of the various schools for carrier cases might show a moderate number of such children in the various schools. It would not be necessary to keep these children from school, but by using special precautions to prevent the transmission of the germ from one child to another and by having a special room in which these children could be taught until their throats were cleared of the diphtheria bacillus, the spread of diphtheria could be greatly reduced.

TABLE No. 29—*Examinations of Specimens to Determine the Presence of Disease from January 1, 1911, to December 31, 1911.*

Diphtheria—	
Positive cultures	559
Negative cultures	2,958
Suspicious cultures	3
Unsatisfactory cultures	17
Total cultures	3,537
Positive cultures of school children's throats	5
Negative cultures of school children's throats	40
Suspicious cultures of school children's throats	0
Total cultures of school children's throats	45

TABLE No. 29 (Continued)—*Examinations of Specimens to Determine the Presence of Disease from January* 1, 1911, *to December* 31, 1911.

Positive cultures from throat examined by Throat Inspector,	281
Positive cultures from nose examined by Throat Inspector..	52
Negative cultures from throat examined by Throat Inspector,	3,124
Negative cultures from nose examined by Throat Inspector,	686
Total cultures examined by Throat Inspector.....	4,143
Tuberculosis—	
Positive results.....	549
Negative results.....	1,673
Suspicious results.....	6
Unsatisfactory results.....	6
Total results.....	2,234
Typhoid Fever—	
Positive reactions.....	617
Negative reactions.....	1,462
Suspicious reactions.....	209
Unsatisfactory reactions.....	17
Total reactions.....	2,305
Blood Examined for Paratyphoid—	
Positive.....	0
Negative.....	39
Total reactions.....	39
Typhoid Bacillus from Blood Cultures—	
Positive results.....	7
Negative results.....	102
Total results.....	109
Typhoid Bacillus Urine and Feces Cultures—	
Positive results.....	0
Negative results.....	5
Total results.....	5

TABLE No. 29 (Continued)—*Examinations of Specimens to Determine the Presence of Disease from January* 1, 1911, *to December* 31, 1911.

Malaria—	
Positive results	17
Negative results	356
Unsatisfactory results	134
Suspicious results	0
Total results	507
Institutions and Hospitals Examined for Diphtheria—	
Positive results	102
Negative results	2,791
Total results	2,893
Institutions and Hospitals Examined for Meningitis—	
Positive results	39
Negative results	125
Total results	164
Quarantine Examined for Cholera Carriers—	
Positive results	0
Negative results	59
Total results	59
Antitoxin—Units supplied to indigent cases	4,544,100
Antitoxin—Cases treated by Health Department	1,563
Tubes of vaccine issued during year	4,349
Injections of antityphoid vaccine	217
Miscellaneous examinations	339
Water examinations	2,197
Milk examinations	1,437
Oyster and clam examinations	142
Ice examinations	46
Ice cream examinations	230

TABLE No. 30—*Cases of Diphtheria Treated With Antitoxin Furnished by the Health Department from January 1, 1911, to December 31, 1911.*

Cases.	Deaths.	Mortality.	Extent of Membrane.				Complications.					Cases Immunized.		
			Tonsils.	Tonsils and Pharynx.	Nasal.	Larynx.	Broncho-Pneumonia.	Nephritis.	Sepsis.	Paralysis.	Cardiac Paralysis.	Total.	Successful.	Diphtheria Developed.
553	38	6.8	219	226	30	195	3	1	2	3	2	263	261	2

Cases in which diphtheria bacilli were found.... 257
Deaths resulting..... 38
Percentage of mortality.....14.7
Deaths from nasal diphtheria out of 30 cases.... 2

Percentage of mortality..... 6.6
Cases of laryngeal diphtheria..... 195
Deaths resulting..... 27
Percentage 13.8

Mortality After Use of Antitoxin According to Duration of Disease at Time of Injection.	1st Day.	2d Day.	3d Day.	4th Day.	5th Day.	6th Day.	7th Day.	8th Day.	10th Day.	2 Weeks.	Unknown.
Cases	99	237	103	67	16	5	10	1	6	2	11
Deaths	7	10	9	6	.....	1	2	.....	1	1	1
Percentage	7.0	4.2	8.9	8.9	.....	20	20	.....	16.6	50	9.0

Mortality in cases not treated with antitoxin (Welch).....42.1%
Average mortality in Baltimore for four years (1894, 1895, 1896, 1897) prior to the use of antitoxin.....55.18%

REPORT OF THROAT INSPECTORS.

The report of Dr. W. P. Stubbs and Dr. B. P. Herzog, throat inspectors, shows that in 1,039 cultures taken by physicians for fumigation 188 contained diphtheria bacilli. The inspectors themselves took 4,143 cultures and 333 of these were positive. These positive cultures caused the residents in the infected houses to be quarantined until further cultures showed the absence of diphtheria bacilli, as all of these cases might otherwise prove to be sources of infection if allowed to mingle with the general public. The throat inspectors also took 738 cultures from the nose and fifty-two of these were positive. In seventeen cases the throat cultures from these same cases were negative, and this shows the importance of taking cultures from both the nose and throat of convalescent and contact cases. I therefore respectfully request that the physicians who submit cultures for the release of quarantine after diphtheria should submit cultures from the nose as well as the throat, as otherwise, I feel sure that a certain number of patients with the diphtheria bacillus in their noses will still be allowed to mix with the public and transmit the disease.

DISTRIBUTION OF SUPPLIES TO CULTURE STATIONS.

The following resume of the work of Mr. Harry Rush, distributor of culture supplies, shows that a large number of these supplies have been distributed to the 123 official culture stations for the use of physicians.

REPORT OF THE DISTRIBUTION OF CULTURE OUTFITS FOR 1911.

Number of culture tubes distributed	23,441
Number of culture tubes brought back	11,494
Number of culture tubes used and sent to the Department	8,784
Number of typhoid boxes distributed	2,846
Number of typhoid boxes used and sent to the Department	2,305
Number of miscellaneous outfits distributed	174
Number of miscellaneous outfits used and sent to the Department	204
Number of sputum outfits distributed	3,500
Number of sputum outfits used sent to the Department	2,297*
Number of combined blood, urine and feces culture outfits distributed	216
Number of combined blood, urine and feces cultures used and sent to the Department	117

Mr. Rush, by keeping a careful tab on the culture outfits, is able to show that practically all are returned to the Department. He also prepares all of the culture material for physicians himself and his work has proven of great service to the laboratory.

*Due to not being sent in before end of year.

REPORT OF SPECIAL INSPECTOR FOR THE BACTERIOLOGICAL AND CHEMICAL LABORATORIES, EDWARD F. KELLY.

	Number of Specimens.
Water, city	156
Water, lake	58
Water, table	134
Water, pump	30
Water, spring	28
Water, well	10
Water, filtered	2
Water, falls	12
Milk	240
Milk, pasteurized	142
Ice	86
Ice cream	293
Oysters	39
Oysters, shucked	9
Clams	26
Special, 12 specimens of Susquehanna River at McCall's Ferry	12
Total	1,277
Number of milk dairies visited	298
Number of stores visited	374
Number of days spent in laboratory work	27
Number of days spent at Mr. Campbell's desk	4

The examination of these various specimens has enabled us to obtain an idea of the condition of many of our raw and refrigerated foods, and the results are set forth in various portions of this report.

EXAMINATION OF CONTROL CULTURES FOR DISINFECTION OF HOUSES AFTER COMMUNICABLE DISEASES.

During the year the laboratory examined 4,670 control cultures which had been placed in rooms in order to test the efficiency of the disinfection. Of these all except 324, or 6.9 per cent., were found to have been destroyed by the formaldehyde gas.

SPECIAL INVESTIGATIONS.

THE TREATMENT OF THE BALTIMORE DRINKING WATER BY MEANS OF CALCIUM HYPOCHLORITE.

(By Wm. Royal Stokes, F. W. Hachtel and R. Freas).

METHODS PURSUED IN TREATING THE WATER.

The water supply furnished to Baltimore is obtained by two large impounding reservoirs which collect the water respectively of the Gunpowder River and the stream known by the name of Jones Falls. Both of these streams run through a densely populated rural district. The water from each impounding reservoir is then led by a conduit to four storage reservoirs for the Loch Raven system and three for the Lake Roland system, and from these storage reservoirs the water is distributed to the citizens.

The application of calcium hypochlorite to the Baltimore drinking water was begun in connection with the Lake Roland supply on June 7th and the treatment of the Loch Raven supply was commenced on June 22nd. The amount of hypochlorite as expressed in parts of available chlorine has been gradually increased and the following amounts have been used. The treatment of Lake Roland was begun with 0.6 of one part of available chlorine per million parts of water on June 7th, but was reduced to 0.4 of one part on June 19th. This amount was again increased in both supplies to 0.6 of one part per million on July 23d; was again increased to 0.75 of one part per million on the 29th of August, and was finally increased to one part per million on October 15th. The hypochlorite solution is added to the water as it flows through the gate chambers of the large impounding reservoirs known as Lake Roland and Loch Raven. The water from the Loch Raven impounding reservoir then flows through a large tunnel or a conduit

which is 36,500 feet in length and its area 113 square feet. The water then flows into the first of a series of storage reservoirs known as Lake Montebello; from this reservoir it flows into a second reservoir known as Lake Clifton; from Lake Clifton into a third and fourth storage reservoir known as Lake Guilford and Lake Ashburton. The water from this system is then distributed from these last two reservoirs to the citizens.

The water from the impounding reservoir known as Lake Roland flows through the gate chamber into a tunnel or conduit 19,020 feet in length with an area of twenty-five square feet. This conduit empties into Lake Hampden and the water then flows to Druid Lake and the Western High Service reservoir, whence it is distributed to the city mains and taps.

It will be seen from the above description that the water after treatment does not reach the citizen for a period of many days, and under normal conditions when the reservoirs are full this may be as long an interval as two weeks. The time must vary greatly, but we have records showing the beginning of increased turbidity in Lake Roland and followed by the appearance of turbid waters in the city taps five days later. We also have records showing increased turbidity and high bacterial counts in both impounding reservoirs followed by a corresponding increased count from the city taps in from five to six days. It would seem, therefore, that when the reservoirs are all full of water the water does not reach the consumer until about two weeks later; but when the water in the storage reservoirs is low the treated water may reach the citizen in from five to six days.

A considerable interval of time also elapses between the treatment of the drinking water and its entrance into the first storage reservoir of either system, and the following statement from Mr. Emory Sudler, Division Engineer, shows the maximum and minimum time elapsing between the treatment of the

drinking water at the end of two gate chambers and the entrance of the treated water into the first storage reservoir.

"Replying to your request for information as to the time required for water to pass from Loch Raven to Lake Montebello and from Lake Roland to Hampden, the following is submitted:

Loch Raven to Montebello: Under normal feed of 60,000,000 gallons per day, the time required for the passage is 12.2 hours.

For a rate of 75,000,000 gallons per day, the time required is 9.7 hours.

For a rate of 100,000,000 gallons per day, the time required is 7.3 hours.

For a rate of 150,000,000 gallons per day, the time required is 4.9 hours; this rate would be attained in filling Montebello quickly after it had been drawn down during a period of muddy water.

The length of the tunnel is 36,500 feet and its area 113.3 square feet.

Lake Roland to Hampden: Under normal feed of 10,000,000 gallons per day, the time required for the passage is 8.5 hours.

For a rate of 15,000,000 gallons per day, the time required is 5.7 hours.

The length of the conduit is 19,020 feet and its area is 25.0 square feet."

The addition of the calcium hypochlorite to the drinking water was first made by means of a temporary plant, but this has been followed later at both impounding reservoirs by the installation of a permanent plant for the addition of the chemical. Both of these varieties have been very kindly described

by Mr. Emory Sudler of the Water Department, and his description is as follows:

DESCRIPTION OF TEMPORARY PLANT FOR THE APPLICATION OF HYPOCHLORITE OF CALCIUM TO THE WATER OF THE JONES FALLS SUPPLY OF THE BALTIMORE CITY WATER DEPARTMENT.

Quantity of Water to be Treated.

The water drawn from the reservoir of the Jones Falls supply for city consumption varies from about six to forty million gallons daily, the latter being the extreme dry season maximum. The average daily consumption from this source under normal conditions will be in the neighborhood of eight to ten million gallons.

Available Chlorine to be Applied.

The treatment of the supply was intended to begin with the application of one part of available chlorine per million parts of water. This, with the average quantity of water to be treated as noted above (nine million gallons daily) would necessitate the use of about one hundred gallons of a solution of 10% hypochlorite (which with 30% A. C. in same would give about 3.0% available chlorine in solution).

Temporary Plant.

Description.

It was at first planned to use wooden tanks for the plant, and tanks were built in the city and hauled out to the reservoir. Because of defective work on same, however, it was impossible to use them. Five oil barrels were therefore obtained and put into place in the gate house, a few hours only being necessary to rig them up so that the hypochlorite could be mixed and applied in solution.

Mixing Barrel.

One barrel was supported upon the other four by the use of two pieces of scantling 3 in. by 4 in. laid across the top of each pair of the four barrels, upon which were nailed 1 in. boards two feet long. This upper barrel was used for mixing and contained a stirring paddle which was made of a piece of 1-8 in. sheet iron 16 in. deep, cut in the form of a half section of the lower part of the barrel; this was perforated with several holes 2½ in. in diameter and was riveted to a ¾ in. iron rod resting in a socket in the bottom of the barrel and guided by a strip of iron across the top of same. A 6 in. crank was placed at the upper end of this rod for revolving paddle. The mixing barrel was drained into either pair of the four storage barrels by revolving same upon its platform before the mixing began, so that the ¾ in. nipple and valve which had been tapped into the side of the mixing barrel (also to the bottom of same) were directly over the storage barrel into which it was desired to empty the mix.

Storage Barrels.

The storage barrels were connected in pairs by means of ¾ in. nipples and unions located between the first and second hoops above the bottoms of same. The pairs themselves were not connected because it was thought that a more efficient mix would be obtained by allowing the hypochlorite more time to dissolve before using.

Orifice Barrel.

The feed control was arranged in a keg or half barrel. A round wooden float of slightly shorter diameter than the smallest interior diameter of the keg, kept the level of liquid constant in the keg by means of an adjustable rod (which could be raised or lowered) in its centre, to the upper part of which was secured a rubber cork. The rod above the cork fits

loosely into the cross of a tee pipe which was centered in the keg and was rigidly fastened in the wall of the keg at a point slightly above the bilge. To the upper end of the tee was secured a stop cock and to the stem which extended through the wall of the keg was fastened a rubber tube through which the solution was syphoned from the storage tanks.

Head on Syphon.

The inlet end of this syphon was fastened to another wooden float in the storage barrel by means of a tube, which extended through and slightly below the bottom of the float in the centre of same. By this arrangement the solution was always drawn from the top, and the tube kept free from sediment.

Control Method of Operation.

The float in orifice or central feed barrel rising with the inflowing solution through the tube brought rubber cork against bottom of same, thereby cutting off flow from storage barrels. By adjusting the rod holding rubber cork the head desired on orifice could be maintained.

Orifice Tube.

For this purpose a bent glass tube was used, same being held in wall of barrel by rubber cork. Over the lower end of this tube a cap of a short piece of rubber tubing was slipped and the orifice itself was secured in this.

Orifices.

Pieces of small glass tubing of varying interior diameters were used as orifices, same being slipped up or down in rubber cap, it thus being possible to adjust head on orifice to a small degree by this means.

The solution was run from the control feed barrel directly into the water to be treated, the same passing through a chamber over which the orifice barrel was placed.

DESCRIPTION OF PERMANENT PLANT FOR THE APPLICATION OF HYPOCHLORITE OF CALCIUM TO THE WATER OF THE JONES FALLS SUPPLY OF THE BALTIMORE CITY WATER DEPARTMENT.

Quantity of Water to be Treated.

The water drawn from this supply averages from six (6) to sixteen (16) million gallons daily, varying from this up to forty (40) million gallons for short periods.

Available Chlorine Applied.

The available chlorine applied at the time this plant was designed and built was seventy-five one-hundredths (0.75) of one part per million.

Design of Plant and Location in Gate-House of Impounding Reservoir.

The plant consists of three concrete tanks, two of which are used as solution storage tanks, and the third as a mixing tank. All are of the same size. The feed-regulating apparatus consists of a concrete orifice box, the head on the orifice being maintained by a float and valve.

A chamber in the gate-house, extending down to the conduit through which the water from the reservoir passes on its way to the city storage reservoirs, was selected as the location for the plant, which is suspended over same by means of reinforced concrete girders and slab built as one.

Storage Tanks. Capacity (Normal) 260 Gallons Each.

On top of the supporting slab two octagonal concrete slabs 10 in. in depth and 6 ft. 0 in. center to center with diameters of 5 ft. 4 in. were molded, a circular slab of same depth and a diameter of 3 ft. 11 in. being molded on top of them. These latter formed bottoms of storage tanks. The tanks were completed by placing over the bottoms formed two (2) sections of re-inforced concrete pipe, 4 ft. 0 in. in length, and of the same

diameter. The space between the bottom slab and the wall of the concrete pipe was then grouted up.

In molding the octagonal and the bottom slabs, pieces of rubber hose were placed, one in each, so that connection could be made from the tanks to a flange on the front face of the octagonal base, the flange being bolted thereto by anchor bolts molded into the concrete.

Attached to the flange is a 2½ in. galvanized tee, leading from the bottom of which is the pipe carrying waste, and from the top the 1 in. pipe carrying the solution to the orifice box, both lines having valves for controlling.

Mixing Tank. Capacity. (Normal) 260 Gallons.

The mixing tank is supported on a re-inforced concrete slab built across the top half of each of the storage tanks, the slab being 9 in. in depth and 7 ft. 0 in. in length. In the center of the front face of this slab the flange connection for the discharge from the mixing tank is located, the flange being bolted as noted above, and a piece of rubber hose molded into the concrete connecting the tank with flange. Near the back of the slab, and so located that the hole which extends vertically through same is about ten inches from the inside wall of the mixing tank, another flange connection is provided, a 2½ in. pipe leading from it carries the waste from the mixing tank to the waste chamber of the gate-house.

The tank itself is constructed in a similar way to the two storage tanks. A slot is provided in the bottom of same for the attachment of a mechanical stirring apparatus.

Working Platform.

A wooden platform, supported on timbers resting on the concrete base, is built around the mixing tank at a level about two feet below the top of same. Steps from the gate-house floor up to this platform (a distance of eight feet) are used for conveying the hypochlorite to the mixing tank. The quantity

used for each charge of the tank being small (forty to one hundred pounds according to strength of solution being used), this is found to be no hardship on the operators.

Orifice Box and Regulating Apparatus.

For feed control, as stated, a re-inforced concrete box, 20 in. in depth, 28 in. in length, and 9 in. in width (inside), with walls 2 in. and 3 in. thick, is used, being placed between the two storage tanks on the concrete base. The two 1¼ in. holes are molded in the front end of this box, one on line with the bottom and the other 12 in. above same. Through these holes and clamped to the wall of the box is a pipe to which orifice is attached, and a pipe with tee, to which supply from each storage tank is connected, respectively. On the inside end of the upper pipe, which end is beveled off so that a disc fastened to a float arm may close tightly against and shut off all flow from it, a special casting is attached, from the lower part of which the float arm is pivoted.

At the outer end of the float arm a glass flask is attached by means of a threaded rod held in the rubber cork of the flask, the threaded rod being screwed into the arm. The flask may thus be raised or lowered in relation to the arm, and the head on the orifice varied from three (3 in.) to twelve (12 in.) in the orifice box.

The pipe to which orifice is attached, however, being attached to the pipe leading out of orifice box by means of an elbow, the head on the orifice may be additionally increased by lowering the same, pivoting at elbow.

A counterweight on the float arm balances the weight of same, and though at present the variation in head on orifice, due to variation of head on the beveled feed pipe, amounts to about one-tenth by decreasing the area of the mouth of this feed pipe, and consequently, the pressure on the float arm by means of the disc, it is anticipated that this variation will be almost negligible.

Water Supply and Stirring Apparatus.

Water for mixing solutions is now applied by a duplex plunger hand pump.

The mixing of solutions is now done by hand also, with use of wooden paddles and rammers for breaking lumps.

An electric motor, which will drive a mechanical stirrer and also pump water, will shortly be installed, however.

Protection of Operators.

For the protection of the operators a hood somewhat similar to the one at the GUNPOWDER SUPPLY plant will be built over the mixing tank, the dust being carried out through the roof of the gate-house.

The operators are supplied here, as at the other plant, with rubber gloves, goggles, boots and overalls, and also sponges to be fastened around the mouth and nostrils.

Operation.

The plant has been in operation for only a short while, but has given perfect satisfaction in every way. It is found that the bronze fittings which are used stand the corrosive action of the solution much better than either the brass or iron hereto fore used.

DESCRIPTION OF TEMPORARY PLANT FOR THE APPLICATION OF HYPOCHLORITE OF CALCIUM TO THE WATER OF THE GUNPOWDER SUPPLY OF THE BALTIMORE CITY WATER DEPARTMENT

Quantity of Water to be Treated.

The water drawn from this supply averages from fifty-five (55) to seventy (70) million gallons daily.

Available Chlorine Applied.

It was intended to apply four-tenths (0.4) of one part of available chlorine per million; this was subsequently increased

to six-tenths (0.6) of one part, and later to seventy-five hundredths (0.75) of one part per million.

Design and Construction. Temporary Plant.

When the temporary plant was installed it was expected to apply the four-tenths of one part of available chlorine per million as noted above.

Storage Tanks. Capacity 400 Gallons Each.

Two lengths of 30 in. cast iron pipe, 12 ft. 0 in. in length, which had previously been used for testing purposes in the gate-house of the impounding reservoir, were utilized as storage tanks, being capped on one end with a lead joint. These were placed on end on the gate-house floor about four feet apart, and a wooden platform built across their tops.

Mixing Barrel.

A barrel containing a paddle attached to a rod pivoted in its bottom, with a handle attached to the top of the rod, was used as a mixing barrel, a two-inch drain pipe being provided at the bottom of same, and two 2 in. overflow pipes located at about ten inches below the top of the barrel. The water supply entered the barrel by another 2 in. pipe.

Orifice Barrel.

Located between the two storage tanks and connected to them by means of ¾ in. pipes provided with by-passes for draining each of the storage tanks, another barrel was placed; near the bottom of this barrel, the outlet, or feed pipe, to the end of which the orifice was attached, was connected, leading to the point at which the solution was applied, the chamber being over mouth of supply tunnel.

Regulating Head on Orifice.

A series of short pipes with valves attached were connected into wall of barrel at various distances above outlet or orifice

pipe; these were used in maintaining a constant head on the latter by allowing a small stream to continually overflow into a receptacle from the one desired. This overflow when the receptacle had become filled was poured into a barrel superimposed above the orifice barrel, the former being provided with a valve by means of which when the barrel was full the solution was run slowly back into the orifice barrel.

Water Supply.

A 1½ H. P. gasoline engine directly connected to a plunger pump supplied water for mixing solutions by means of the 2 in. pipe as noted.

Operation.

About one hundred (100) pounds of hypochlorite were used as a normal charge in the mixing barrel, this being hoisted up to the mixing platform by means of a rope fall. The hypochlorite was mixed with the barrel full of water to form a paste, the lumps being broken as placed in the barrel; and when uniformly mixed the water supply and the overflow valves were opened, and the paste thoroughly stirred while the solution was run into either of the storage tanks.

Sufficient hypochlorite was used to form the proper strength solution when the storage tank was filled.

Long wooden paddles were used in each of the storage tanks for stirring solution in same, and a more efficient mix was obtained with their use than previously without them.

Considerable trouble was experienced by the clogging of the ½ in. pipe connecting storage tanks with orifice barrel. These pipes should have been at least 1½ in. in diameter, as they were also used for draining waste (sediment) from storage tanks.

DESCRIPTION OF PERMANENT PLANT FOR THE APPLICATION OF HYPOCHLORITE OF CALCIUM TO THE WATER OF THE GUNPOWDER SUPPLY OF THE BALTIMORE CITY WATER DEPARTMENT.

Quantity of Water to be Treated.

The water drawn from this supply averages from fifty-five (55) to seventy (70) million gallons daily, varying from these figures all the way up to two hundred and fifty (250) million gallons for short periods when the supply is first turned into supply tunnel after having been shut off.

Available Chlorine Applied.

As the available chlorine applied was increased from four to six-tenths of one part per million a few weeks after the temporary plant had been in operation, the permanent plant was designed with the application of this amount (0.6 of one part per million) in view.

Location of Plant. In Gate-House of Impounding Reservoir.

The only feasible location of the plant was found to be at one end of and partly covering the opening of a chamber extending down to the mouth of the supply tunnel, which carries the water by gravity to the city storage reservoirs (seven miles distant).

Design of Plant.

The plant as designed and constructed consists of two solution storage tanks, a syphon chamber or feed chamber, and a superimposed mixing tank, these being supported on a reinforced concrete slab and girder built across the end of the tunnel chamber and molded simultaneously with the tanks themselves, all of concrete.

Solution Storage Tanks. Capacity 2,200 Gallons Each.

Two (2) cylindrical tanks having an octagonal exterior form so built that a short section of wall is common to both tanks, being joined at a side of the octagon, are used as storage tanks. Each of these has an internal diameter of 8 ft. 0 in. and a depth of 6 ft. 0 in., with a concave bottom draining to a slot extending to a 3 in. round hole through wall of tank, a flange connection being made on outside of tank, secured to tank by anchor bolts molded in the concrete, with waste pipe line.

The supply to feed chamber is by means of a similar flange connection located slightly above edge of concave bottom, to which is attached a 3 in. rubber hose and valve, the hose being connected to feed chamber similarly.

The waste or drain is carried by a 3 in. galvanized pipe to a waste chamber in the gate-house, from whence it flows to a point below the reservoir dam.

Provision is made in the bottom of each tank for the attachment of a stirring apparatus should it be found necessary.

Syphon or Feed Chamber.

Built into one of the angles formed by the joined octagon-shaped solution tanks, the walls of which form two of the walls of it, the feed chamber is located. It is of square shape.

The size of this chamber is 2 ft. 5 in. by 2 ft. 5 in. in plan, its depth being identical with that of the storage tanks.

As noted above, attachments for supplying solution to this chamber are made, one on each adjoining side, by means of 3 in. rubber hose attached to flanges bolted to the chamber.

Another similar flange is placed in the center of the bottom of the chamber, to which is connected a three-way having a 3 in. valve below it through which the chamber is drained. The other connection to the three-way is a 1 in. rubber hose to which is attached the orifice through which solution is fed to the water supply as it enters the supply tunnel directly beneath.

Mixing Tank.

Superimposed over the other angle formed by the joined octagon-shaped storage tanks, being supported on a 6 in. re-inforced concrete slab built across the top of the same, is the mixing tank.

A section of re-inforced concrete pipe which had been used previously for testing purposes was utilized for this tank. The pipe section is four feet long, the inside diameter being 4 ft. 0 in. A circular concrete slab 10 in. deep and having a diameter of 3 ft. 11 in. was molded onto the supporting slab to form a bottom for the tank; the pipe was then placed and the space between the slab and the wall of the pipe grouted up.

A slot was molded in the center of the bottom of the tank for attaching the stirring apparatus.

Pipe connections similar to the ones noted above were made with the tank, the waste or drain being located under the base of the tank and outside the storage tanks, and the supply or overflow being flanged to the wall of the tank by expansion bolts about mid-way of its depth on the center line between the storage tanks; this has a swivel spout which may be revolved so as to discharge into either storage tank. Both the connections are, of course, provided with valves.

Working Platform.

A heavy wooden platform 12 ft. 0 in. by 14 ft. 0 in., supported on heavy timbers, is built on a level with the top of the mixing tank. This is covered with sheet iron and provides storage for a number of drums of hypochlorite.

Hoisting Apparatus.

A two-ton travelling chain hoist supported on an eye-beam having eight feet clearance above the working platform is intended for the hoisting of the drums of hypochlorite from the floor of the gate-house to the platform.

Water Supply for Mixing Solutions.

A 1½ H. P. gasoline engine direct-connected to a plunger pump supplies water through a 2 in. pipe at the rate of from 1,500 to 2,000 gallons per hour to the mixing tank, a valve being placed on the supply line at the mixing tank with a relief valve at the pump.

Stirring Apparatus.

The pump engine also furnishes power for the stirring apparatus through reducing gears on a shaft which is belt-driven from a pulley on an engine drive shaft. An inverted "U" shaped iron frame is clamped to the vertical shaft in the mixing tank, to the prongs of which are attached a cross arm with six vertical paddles 2½ in. in width and about 18 in. in length, bolted to it. These paddles revolve between four baffles of the same dimensions which are secured to the bottom of the tank. The cross arm of the revolving paddles is prevented from lateral motion by a collar around the pipe which protects the shaft.

The shaft turns in a bronze bearing at the bottom of capped galvanized pipe secured in the bottom of the tank. This pipe affords complete protection to the shaft and bearing. The shaft revolves at about twenty-five revolutions per minute.

Regulating Apparatus.

A float made of concrete plastered on a metal (wire mesh) frame, the dimensions of which are slightly less in plan than those of the syphon or feed chamber, is used in that chamber, a wire leading upwards from this float to a spirally-grooved pulley secured to roof of gate-house. This pulley has a sufficient number of grooves to permit the winding of the wire incident to the complete vertical movement of the float and also of another wire leading to a single grooved wheel located over and convenient to the vertical movement of the orifice hose, to which it is attached. The wires being wound on the grooved

pulley in the same manner, the float in the chamber and the orifice on the hose move up and down simultaneously.

A counterweight is attached to another grooved pulley which is secured to the same shaft as the one carrying the wire from the float, but the wire to which the counterweight is attached is wound the opposite way from the float wire; this balances the weight of the hose and orifice.

For the adjustment of the head on the orifice, a sliding scale having thumb-screw clamp is connected between the orifice and the grooved wheel on the wire leading therefrom.

Prevention of Clogging of Drain Pipes.

Attachments for hose connections are provided at four points on the waste or drain piping, so that they may be flushed out when clogged with sediment from the tanks.

Because of the ample size of the orifice hose (1 in. internal diameter) no clogging is anticipated therein.

Protection of Operators.

A large hood is to be built over and about six feet above the mixing tank, to extend out over the working platform.

This will have an inverted funnel shape, the neck of the funnel being formed by the chimney, which will carry the dust caused by the handling of the hypochlorite up through the roof of the gate-house. A large swivelled hood will cap the chimney, and it is anticipated that the suction through the chimney will effectively remove the dust.

The operators are provided with heavy rubber gauntlet gloves, rubber boots, heavy overalls, and rubber rimmed goggles for the protection of their eyes from the dust, and sponges to be worn over mouth and nostrils.

BACTERIAL REDUCTION EFFECTED BY THE TREATMENT OF THE BALTIMORE DRINKING WATER.

As has been stated above, the amount of hypochlorite as expressed in parts of available chlorine was increased on several different occasions, and the results as shown by monthly com-

putations indicate that the larger amounts of hypochlorite have produced the greater bacterial reduction. The treatment of the water was hardly well under way until about the middle of June, and the comparative monthly results will therefore only be given beginning with the first of July, these being expressed in the following table:

TABLE NO. 31—*Lake Roland System.*

		Average Bacteria per c. c.	Percentage of bacterial reduction.	Percentage of Positive Colon Tests.		
				1/10 c. c.	1 c. c.	10 c. c.
July	Raw water..	47,600	.....	60	86	100
	Storage.....	725	99	26	57	84
	City taps....	4,410	91	0	22	64
August	Raw water..	38,540	.....	76	.....	.....
	Storage.....	1,210	97	32	66	.....
	City taps....	550	99	3	40	.....
September	Raw water..	15,095	.....	46	80	.....
	Storage.....	286	98.5	4	31	.....
	City taps....	170	99	6	30	.....
October	Raw water..	17,830	.....	91	100	.....
	Storage.....	457	99.6	7	37	.....
	City taps....	538	99.5	13	33	.....
November	Raw water..	58,045	.....	36	91	.....
	Storage.....	627	98.9	0	19	.....
	City taps....	1,430	97.6	4	26	.....
December	Raw water..	6,540	.....	20	35	.....
	Storage.....	583	91	0	12	.....
	City taps....	642	91.1	5	10	.....

Available chlorine 0.4 parts per million during June and July; 0.6 parts per million during August; 0.75 during September and to October 15th; 1.0 from October 15th to December 31st.

TABLE No. 32—*Loch Raven System.*

		Average Bacteria per c. c.	Percentage of bacterial reduction.	Percentage of Positive Colon Tests.		
				1/10 c. c.	1 c. c.	10 c. c.
July	Raw water..	60,800	.....	62	88	100
	Storage.....	1,835	97	23	56	89
	City taps....	1,580	98	12	29	62
August	Raw water..	39,560	.....	89	.....	.....
	Storage.....	2,497	94	14	48	.....
	City taps....	134	99.5	11	37	.....
September	Raw water..	12,409	.....	74	.....	.....
	Storage.....	754	94.1	14	39	.....
	City taps....	336	95.9	0	33	.....
October	Raw water..	4,260	.....	82	.....	.....
	Storage.....	638	98.6	13	39	.....
	City taps....	596	99	2	33	.....
November	Raw water..	129,996	.....	55	.....	.....
	Storage.....	1,227	99.1	7	20	.....
	City taps....	1,085	99.2	8	38	.....
December	Raw water..	19,313	.....	29	92	.....
	Storage.....	1,916	90.1	5	22	.....
	City taps....	1,227	93.7	0	12	.....

Available chlorine 0.4 parts per million during June and July; 0.6 parts per million during August; 0.75 during September and to October 15th; 1.0 from October 15th to December 31st.

On consulting these tables it can be seen that the best results in the elimination of the intestinal organisms from the storage reservoirs and the city taps were obtained after the hypochlorite had been increased so as to represent 1.0 part of available chlorine per million parts of water. The results in the general bacterial reduction are variable, but these have been influenced somewhat by an increase of the spore-bearing or-

ganisms. These so-called "after-growths" may be due to the fact that all of the non-spore-bearing organisms including the intestinal bacteria are destroyed, and that the spore-bearing bacteria deprived of their natural enemies develop unresisted.

THE RESULT OF THIS TREATMENT IN OTHER CITIES.

The use of calcium hypochlorite for the destruction of bacteria in drinking water was first proposed by Traube in 1894, who reported that when this chemical was added to water in a quantity corresponding to one part of available chlorine in one million parts of water, the water containing many bacteria was practically sterilized in two hours. But although its use in disinfecting sewage had been practiced for some time before this date, yet its practical application to the purification of drinking water was not made until 1908.

According to Johnson, the first practical demonstration of this process was made at the filter plant of the Chicago Stock Yards in the fall of 1908, and this was soon followed by the adoption of this method at Boonton for the purification of the drinking water of Jersey City. The method has since been introduced in many American cities, among which can be mentioned New York, Brooklyn, Cincinnati, Columbus, Harrisburg, Philadelphia, Pittsburg, Hartford, Montreal, Nashville, St. Louis, Toronto, Minneapolis, Quincy, Ill., Omaha, and Cambridge, England.

Owing to the application of this method to the drinking water of these various cities, a large amount of data has been accumulated concerning the percentage of bacterial destruction and the amount of available chlorine necessary to accomplish good results, and the following table will show the results from some of the above cities.

TABLE No. 33.

PLACE.	Date of Commencement.	Million Gallons Treated Daily.	Parts per Million av. Cl. ad.	Per Cent. Reduction of Bacteria.	B. Coli in Treated Water.
Harrisburg, Pa.	July, 1909	.....	0.39	99.7	.....
Hartford, Conn.	.....	.....	1.0	Over 99.5	Not found.
Jersey City, N. J.	January, 1909	40	0.2	99.5	Only one in 455 tests.
Minneapolis, Minn.	February, 1910	20	(1.1 at first) to be reduced	77.5	Not found.
Montreal, Canada	January, 1910	40	0.35	99.5	.....
Nashville, Tenn.	August, 1909	14	0.45	98.4	No coli.
Quincy, Ill.	April, 1909	.....	1.1 to 0.45	99.7 to 98.3	.....
Toronto, Canada	March, 1910	35	0.35	77	Absent in 16 Tests.
Milwaukee, Wis.	.....	50	0.3	99	.....
Omaha, Neb.	.....	.....	0.45	93	Present 4 in 216 Tests.
Cambridge, England	.....	.....	.....	97	Not found.

The above table shows that although relatively small amounts of hypochlorite have been used in various cities, yet in most of these cities the bacterial reduction has varied between 93% and 99%. Toronto shows the small bacterial reduction of 77% with 0.33 parts of available chlorine per million, while Minneapolis with 1.1 parts per million only shows a reduction of 77.5%.

THE DESTRUCTIVE ACTION OF CALCIUM HYPOCHLORITE UPON THE PATHOGENIC AND INTESTINAL BACTERIA.

The effect of different dilutions of calcium hypochlorite upon the pathogenic intestinal bacteria has also been studied, and the amounts of chlorine necessary to kill even different members of the same species seem subject to moderate variations, as pointed out by Westbrook, Whittaker and Mohler.

These investigators have shown that water richly sown with various stains of the typhoid and colon bacillus required from one to three parts of chlorine per million parts of water in order to completely destroy these bacteria in four hours. Numbers varying between 15,000 and 2,000,000 bacteria per cubic centimeter were introduced into the water in the test flasks, and these quantities far exceed any met with in polluted drinking water.

The action of chlorine upon the cultures of the spirillum of Asiatic cholera in water has also been tested by Harding, who showed that numbers varying from 10 to 1,000 per cubic centimeter could be practically destroyed in thirty minutes. In a few of his test plates he obtained from one to three colonies, but if he had taken cultures at the end of three or four hours these would almost certainly have been destroyed. On carefully examining the tables by Wesbrook and his assistants it will be seen that 1½ parts of chlorine per million were sufficient to destroy the typhoid and colon bacillus in about four hours; and it will be seen, therefore, that from 1 to 1½ parts

of chlorine per million will destroy the pathogenic and intestinal bacteria even when present in the drinking water in very large numbers.

THE EFFECT OF THE CALCIUM HYPOCHLORITE TREATMENT UPON THE CHEMICAL CONSTITUENTS OF THE WATER.

The following table shows the averages of the various chemical constituents made from a large number of routine examinations of the water. The results from the various portions of the system are placed in order beginning with the Loch Raven impounding reservoir and ending with the specimens of tap water supplied by this system, and again beginning with the Lake Roland impounding reservoir and ending with the taps supplied by this system. The most important point to be determined was to see whether the hypochlorite treatment of the drinking water caused an increase in the amount of chlorine in the water itself, but an examination of the table will show that there was no increase in the chlorine perceptible, the average from the Loch Raven impounding reservoir before treatment being 4.3 and the average from the tap water from this system being 3.9; while the average from the Lake Roland impounding reservoir before treatment was 6.3 and the average from the various storage reservoirs ranged from 5 to 6 parts per million.

The table also shows gradual oxidation of the free and albumenoid ammonia into nitrites and nitrates. The amount of free and albumenoid ammonia and of nitrites gradually decreases as the water passes from the impounding reservoir into the various storage reservoirs. The nitrates show a somewhat irregular increase, but with the exception of the Jones Falls taps there is quite a contrast between the nitrates of the raw water and of the water from the city taps. The averages from the Jones Falls taps are based upon a very small number of examinations, and we believe that if more examinations had

been made the results would have been in accord with the general results obtained from the other examinations.

Table of Average Chemical Analyses of Water Before and After Hypochlorite Treatment. Results Stated in Parts per Million.

		Nitrogen as.			
	Chlorine.	Free Ammonia.	Albumenoid Ammonia.	Nitrites.	Nitrites.
Loch Raven	4.3	.090	.112	.011	.372
Lake Montebello	4.2	.086	.106	.019	.297
Lake Clifton	4.3	.063	.070	.022	.402
Lake Guilford	4.0	.063	.037	.003	.202
Lake Ashburton	4.3	.006	.046	.004	.247
Gunpowder taps	3.9	.001	.040	.003	.525
Lake Roland	6.3	.028	.160	.024	.174
Lake Hampden	6.1	.107	.151	.010	.288
Druid Lake	6.1	.022	.104	.009	.143
Western High Service	5.0	.037	.132	.011	.200
Jones' Falls taps	5.9	.049	.060	.005	.086

EXPERIMENTS CONCERNING THE DESTRUCTIVE ACTION OF VARIOUS AMOUNTS OF CALCIUM HYPOCHLORITE UPON THE WATER AND INTESTINAL BACTERIA.

We have performed a number of experiments concerning the effect of various amounts of calcium hypochlorite upon the raw water as obtained either from the Loch Raven supply or from the Lake Roland supply. These experiments have consisted in mixing the proper amounts of calcium hypochlorite in solution with either 250 or 500 cubic centimeters of the raw water. The water and the hypochlorite were allowed to

stand either at room temperature, outside temperature, or incubator temperature, and the results in detail are expressed in the following table:

Untreated Water. August 30, 1911.

Bacteria per c. c.	Colon Bacillus Present in.			No. Hours.
	1/10 c. c.	1. c. c.	10 c. c.	
4,800	0	+	+	48
28,000	0	0	+	24
7,200	+	+	+	18
1,380	0	0	+	1
300	0	0	+	Before treatment
Treated Water. 0.75 *Parts per Million.*				
4,800	0	0	+	48
12,000	0	0	+	24
3,000	0	0	+	18
50	0	0	+	1

The above table shows that 0.75 parts of available chlorine per million will permanently destroy the colon bacillus in such small quantities of water as 1/10 c. c. and 1 c. c. in one hour, but that the intestinal bacillus remains in 10 c. c. of water even after forty-eight hours.

LOCH RAVEN—*Untreated Water. September* 1, 1911.
(Mean Turbidity 283.)

BACTERIA PER C. C.	Colon Bacillus Present in.						No. Hours.
	10 C. C.	1 C. C.	1/10	1/100	1/1,000	1/10,000	
40,000	0	0	+	+	+	0	0
54,000	.....	.....	+	+	0	.....	1
36,000	.....	.....	+	+	0	.....	2
60,000	.....	.....	+	+	+	.....	3
250,000	.....	.....	+	+	0	0	24
80,000	.....	.....	+	+	+	.....	48

LOCH RAVEN—*Treated Water.* 0.75 *Parts per Million.*

2,000	.....	+	0	0	0	.....	1
700	+	0	0	0	0	.....	2
1,000	+	0	0	0	0	.....	3
1,000	+	0	0	0	0	.....	24
1,000	+	0	0	0	0	.....	48

The above table shows a marked reduction in the number of bacteria per cubic centimeter, but again illustrates the fact that the colon bacillus is not permanently destroyed by 0.75 of one part of available chlorine in such large quantities as ten cubic centimeters.

The next set of experiments was performed with 0.8 and with 0.9 parts of available chlorine per million parts of water, the Loch Raven water being used.

LOCH RAVEN—*Untreated Water. September 26, 1911.*
(Mean Turbidity 9.5.)

Bacteria per c. c.	Colon Bacillus Present in.				Number of Hours.
10 c. c.	1 c. c.	1/10	1/100	1/1,000	
20,000	+	+	+	+	0
4,500	+	+	+	0	1
15,000	+	+	+	0	2
6,500	+	+	0	0	3
LOCH RAVEN—*Treated Water.* 0.8 *Parts per Million.*					
50	0	0	0	.....	1
800 +	0	0	0	.....	2
60 0	0	0	0	.....	3
LOCH RAVEN—*Treated Water.* 0.9 *Parts per Million.*					
30	0	0	0	.....	1
10	0	0	0	.....	2

The next set of experiments was performed upon Loch Raven water with hypochlorite of calcium corresponding to 0.8 and 0.9 of one part per million of available chlorine. The original hypochlorite in the can showed a low amount of available chlorine, being only 4.25%. This was called "old" hypochlorite treatment.

LOCH RAVEN—*Untreated Water. September 27, 1911.*
(Mean Turbidity 10.)

Bacteria per c. c.	Colon Bacillus Present in.					Number of Hours.
	10 c. c.	1 c. c.	1/10	1/100	1/1,000	
20,000	+	+	+	+	+	0
4,500	+	+	+	+	0	1
15,000	+	+	+	+	0	2
6,500	+	+	+	0	0	3
8,000	+	+	+	0	0	4
15,000	+	+	+	0	0	5
240,000	+	+	+	0	0	24
180,000	+	+	+	+	0	48

LOCH RAVEN—*Treated Water.* 0.8 *Parts per Million.*

50	.....	0	0	0	.....	1
800	+	0	0	0	.....	2
60	0	0	0	.....	.....	3
70	0	0	0	.....	.....	4
90	0	0	0	.....	.....	5
450	+	0	0	.....	.....	24
150,000	+	0	0	.....	.....	48

LOCH RAVEN—*Treated Water.* 0.9 *Parts per Million.*

30	.....	0	0	0	.....	1
800	0	0	0	0	.....	2
50	0	0	0	.....	.....	3
100	0	0	0	.....	.....	4
60	0	0	0	.....	.....	5
100	+	0	0	.....	.....	24
150	0	0	0	.....	.....	48

The experiments set forth in the above tables show that 0.8 of one part per million will not permanently destroy the water bacteria, since at the end of forty-eight hours there is a considerable increase. The colon bacillus is also frequently present in 10 c. c. With 0.9 of one part per million the water bacteria

are permanently destroyed and the colon bacillus is practically destroyed even in ten cubic centimeters. It should be borne in mind that these experiments were performed with calcium hypochlorite with a low chlorine content, this being only 4.25 per cent.

The next set of experiments was performed with 0.8 and 0.9 of one part per million with hypochlorite from a can whose available chlorine was high, being 25%. This was called "new" hypochlorite.

LOCH RAVEN—*Untreated Water. September* 28, 1911.
(Mean Turbidity 13.5.)

Bacteria per c. c.	Colon Bacillus Present in.					Number of Hours.
	10 c. c.	1 c. c.	1/10	1/100	1/1,000	
19,500		+	+	+	0	0
18,000		+	+	+	0	1
30,000		+	+	+	0	2
25,000		+	+	+	+	3
720,000			+	+		24
1,200,000			+	+	0	48

LOCH RAVEN—*Treated Water.* 0.8 *Parts per Million.*

160	+	0	0			1
900	0	0	0			2
150	0	0	0			3
8	0					24
10,000	0	0				48

LOCH RAVEN—*Treated Water.* 0.9 *Parts per Million.*

300	0	0	0			1
250	0	0	0			2
300	0	0	0			3
12	0	0				24
450	0	0				48

The above table shows that 0.8 of one part per million holds its effect on the water for about twenty-four hours, when in both experiments there seems to be a sudden increase of the bacteria. This increase is probably prevented by the use of 0.9 of one part per million of calcium hypochlorite, since the bacterial reduction is still seen after forty-eight hours with this amount, 150 bacteria comparing to 180,000 of the untreated water, and 150,000 per c. c. with 0.8 parts per million. The colon bacillus is destroyed in 10 c. c. by 0.9 of one part of chlorine.

The table which follows shows a continuation of the experiments in order to determine the destructive action of various amounts of calcium hypochlorite upon the raw water taken from Loch Raven and used for experimental purposes. The results of these various tests show that when the water was particularly turbid, showing a turbidity of 206, 0.9 of one part and 1.0 part of available chlorine per million caused a marked reduction in the number of bacteria present, but did not actually destroy the colon bacillus in 1 c. c. in six hours, and in 10 c. c. in twenty-four hours. The second set of experiments with 1.5 parts of available chlorine per million showed that water with a turbidity of eighty-three was not freed from the colon bacillus in 1 or 10 c. c. of water even after twenty-four hours.

Other experiments which we have performed later seem to indicate that the fermentation in the case of 1.5 parts per million was probably produced by the anaerobic gas-forming Bacillus aerogenes capsulatus, or Welch's gas bacillus, and that the colon bacillus was really destroyed by this amount.

Loch Raven—*Untreated Water. October* 3, 1911 (*Turbid*).
(Mean Turbidity 206.)

Bacteria per c. c.	Colon Bacillus Present in.					Number of Hours.
	10 c. c.	1 c. c.	1/10	1/100	1/1,000	
60,000		+	+	+	+	0
55,000		+	+	+	0	1
35,000		+	+	+	0	2
40,000		+	+	+	0	3
45,000		+	+	+	0	4
75,000		+	+	0	0	5
65,000		+	+	+	0	6
210,000		+	+	0	0	24

Loch Raven—*Treated Water.* 0.9 *Parts per Million.*

2,000	+	+	0	.....	.....	1
900	+	0	0	.....	.....	2
450	+	0	0	.....	.....	3
600	+	+	0	.....	.....	4
600	+	+	0	.....	.....	5
750	+	+	0	.....	.....	6
1,000	+	.....	.....	.....	.....	24

Loch Raven—*Treated Water.* 1.0 *Parts per Million.*

550	+	+	0	.....	.....	1
400	+	+	0	.....	.....	2
300	+	0	0	.....	.....	3
400	+	+	0	.....	.....	4
400	+	0	0	.....	.....	5
750	+	+	0	.....	.....	6
200	+	.....	.....	.....	.....	24

LOCH RAVEN—*Untreated Water. October* 19, 1911.
(Mean Turbidity 100.)

Bacteria per c. c.	Colon Bacillus Present in.					Number of Hours.
	10 c. c.	1 c. c.	1/10	1/100	1/1,000	
30,000	.....	+	+	+	0	0
75,000	.....	+	+	+	0	1
60,000	.....	+	+	+	0	2
75,000	.....	+	+	+	0	3
80,000	.....	+	+	+	0	4
75,000	.....	+	+	+	+	5
180,000	.....	+	+	+	0	24

LOCH RAVEN—*Treated Water.* 1.5 *Parts per Million.*

250	+	+	0	.....	.....	1
200	+	+	0	.....	.....	2
250	+	+	.....	.....	.....	3
150	+	+	.....	.....	.....	4
120	+	+	.....	.....	.....	5
180	+	+	.....	.....	.....	24

SUMMARY.

These experiments can be summarized by stating that an amount of calcium hypochlorite equaling available chlorine of one part per million can usually be depended upon to destroy the colon bacillus in the raw drinking water of Baltimore under the usual conditions of turbidity. When the turbidity is much over fifty, however, it requires larger amounts to effect this destruction and 1.5 parts per million can usually be relied upon.

LOCH RAVEN—*Untreated Water. December 29, 1911.*
(Mean Turbidity 45.)

Bacteria per c. c.	Colon Bacillus Present in.					Number of Hours.
	10 c. c.	1 c. c.	1/10	1/100	1/1,000	
1,115,000						0
2,100,000		+	+	+	+	2
3,000,000		+	+	+	0	3
1,800,000		+	+	+	+	4
1,200,000		+	+	0	0	24

LOCH RAVEN—*Treated Water. 2.0 Parts per Million. Room Temperature.*

4,000	0	0	0	0		1
1,400	0	0	0	0		2
370	0	0	0	0		3
215	0	0	0	0		4
1,900	0	0	0	0		24

LOCH RAVEN—*Treated Water. 2.0 Parts per Million. 37° C.*

3,000	0	0	0	0		1
1,150	0	0	0	0		2
1,400	0	0	0	0		3
1,100	0	0	0	0		4
25,000	0	0	0	0		24

This table shows some interesting facts. In the first place, it shows that when the turbidity is fairly low the hypochlorite is capable of destroying much larger numbers of bacteria, and it also destroys the colon bacillus effectively. The action of the hypochlorite shows up better at a temperature of the room at 70° F. than at the higher temperature of the incubator or 98° F., as there is a decided increase of the water bacteria at the end of twenty-four hours. The intestinal bacteria, how-

ever, were permanently destroyed, other tests showing that they were not present at the end of twenty-four hours even in fifty cubic centimeters of the water.

INFLUENCE ON TYPHOID MORBIDITY AND MORTALITY.

On analyzing the records of typhoid morbidity and mortality for Baltimore we have thought it best to compare the monthly figures beginning with the year 1906 and ending with the year 1910 with the figures for the corresponding months of 1911. The following table will show the figures in detail.

TABLE No. 34—*Typhoid Fever in Baltimore, January, 1907, to December, 1911, Showing Decrease in Morbidity and Mortality Since the Use of Hypochlorite.*

MONTHS.	1906.		1907.		1908.		1909.		1910.		1911.		Average of Five Years, 1906-1910.	
	Case Incidence.	Deaths.	Case Incidence.	Deaths.	Case Incidence.	Deaths.	Case Incidence.	Deaths.	Case Incidence.	Deaths.	Case Incidence.	Deaths.	Case Incidence.	Deaths.
January	31	12	43	12	47	7	39	16	40	7	55	11	40	10.8
February	31	6	16	5	26	9	23	3	25	11	31	3	24	6.8
March	25	6	37	6	36	3	20	5	30	12	35	5	29	6.4
April	67	11	35	17	24	2	22	4	22	4	44	8	36	11.2
May	143	12	65	3	40	3	23	5	31	2	56	7	60	5.0
June	87	5	41	6	47	3	41	6	46	8	34	8	52	4.2
July	105	14	78	22	149	24	107	11	110	7	89	4	110	15.6
August	284	34	217	23	339	35	217	20	473	30	280	22	306	28.4
September	206	32	469	41	364	29	312	24	398	49	241	31	349	35.0
October	125	26	241	47	187	30	138	23	359	42	170	28	210	33.6
November	59	15	87	31	99	25	61	10	251	37	104	19	111	23.6
December	46	10	91	17	68	10	66	9	106	26	62	8	75	14.4
Total	1,209	183	1,420	230	1,426	189	1,069	130	1,891	235	1,201	154	1,403	192.8

On examining Table No. 34 it will be seen that the number of cases of typhoid during 1911 are less by 202 than the average number of cases for the past five years, and the deaths are less by thirty-eight than the average number of deaths for the last five years. On examining the comparative figures for 1910 and 1911 a much greater difference is observed, for although the reported cases for the first five months in 1911 were nearly double the figures in 1910, yet there is a marked diminution of both cases and deaths beginning with June, when the hypochlorite treatment was begun. The total number of cases for 1910 was 1891, whereas the total number for 1911 was only 1,201. The total number of deaths for 1910 was 235, whereas the total number of deaths for 1911 was 154. The tables for the last five years certainly show a tendency towards a gradual increase in the cases of typhoid yearly, and this makes the reduction in the cases and deaths for 1911 slightly more favorable, especially when we bear in mind that there has been an estimated increase in the population since 1906 of 25,000.

It is a difficult matter to draw any final conclusions concerning the hypochlorite treatment of the drinking water in such a short space of time, but the figures at least are encouraging, and it is hoped that these favorable results will continue.

The chart No. 4 which follows shows in a graphic manner the decrease in typhoid cases after the hypochlorite treatment of the water was begun. The black lines show the number of reported cases by months in Baltimore in 1910. These reach a maximum of 473 cases in August. The green lines show the average number of cases by months for the five years from 1906 to 1910. The red lines show the number of reported cases by months for 1911, and it will be seen that the curve for 1911 remains practically above both of the other lines until June. It then crosses the curves for 1910 and for the monthly average of the past five years, and remains well below both throughout the rest of the year. The contrast in the chart is quite striking,

and the arrow indicates that the hypochlorite treatment was begun about the first of June. It is just at this point that the typhoid morbidity begins to drop and the curve indicates that it remains below the other lines during the rest of the year.

CONCLUSIONS.

The present report can only be considered as a preliminary investigation and no lasting conclusions can be drawn from data secured during such a short period of time. The results obtained, however, show that the hypochlorite treatment produces a marked diminution in the bacterial content of the treated water. We have also noted a diminution in the number of cases of typhoid fever after the treatment of the water was inaugurated; but while these results are encouraging we wish to withhold a positive opinion as to the effect of the hypochlorite treatment until we have secured further data covering a period of several years.

EXAMINATION FOR CHOLERA CARRIERS.

On August 3d we examined twenty-nine specimens from the stools from healthy individuals on the steamship "Monviso," which had stopped at an infected foreign port. These examinations were made in order to detect the presence of the Spirillum of Asiatic cholera. Whenever suspicious colonies were found upon the plates they were mixed with an anti-cholera serum at a dilution of 1 to 10,000. The examinations were all negative.

On October 13th we examined thirty similar specimens from the steamship "Soperga," but all of these were negative.

We have carried on some experimental work in order to devise a color reaction in plate cultures in order to detect the presence of cholera spirilla. Following out the suggestion of Dr. Hachtel we have used starch in the Hesse's semi-fluid medium and have found that only the intestinal spirilla will

produce a pink color when litmus is added, owing to the acid reaction produced by such spirilla. We believe that this is a step towards securing a differential color reaction for the Spirillum of Asiatic cholera. This work is published in detail in the March number of the American Journal of Public Health.

SUMMARY.

The following conclusions might be drawn from the report just presented. The examination of the water supply during the early months of the year showed that many specimens from the water shed, the impounding reservoirs, the storage reservoirs, and the city taps, showed high bacterial counts and contained the colon or intestinal bacillus in small quantities of water. During the month of June the treatment of the water flowing from Lake Roland and Loch Raven with calcium hypochlorite was begun. The results of this treatment are set forth as a special investigation at the end of this report, and the examinations of the various specimens of water collected from the different parts of the water system show a marked reduction in the bacterial count as well as a great diminution of the number of positive tests for the colon or intestinal bacillus. A glance at the table and chart representing the typhoid morbidity and mortality will also show that there was a considerable fall in both following the use of the calcium hypochlorite, but final conclusions can not be drawn until a study has been made extending over several years.

The examination of pumps, wells and springs shows that there is still a large number of wells within the city showing high bacterial counts and containing the colon bacillus. The contamination of these wells is due to seepage from a large number of cesspits within the city limits and from surface drainage, and whenever possible such wells should be closed.

The examination of the various table waters sold in the city shows that some of these waters occasionally show high

bacterial counts and intestinal pollution. In the case of one water the facts were presented to the State Department of Health and measures have been taken to remedy the condition. Other occasional samples of polluted water have been reported to the various dealers and are probably due to slight errors in handling the water or due to the filling of bottles with water other than that called for on the label of the bottle. The practice of keeping table waters in warm rooms for several days or longer often produces a great increase of bacteria in the original water, and it is my belief that a table water should be distributed to the consumer within twenty-four hours after its collection and not allowed to remain in stores for days and weeks before distribution.

The results obtained from the bacteriological examination of milk show that in 1,337 samples of milk examined the bacterial content was 500,000 or over in 767 cases, a percentage of 64.5. This shows that over 50% of the specimens of market milk in Baltimore are in excess of the maximum bacterial standard used in large cities, namely, 500,000 bacteria per cubic centimeter. The colon bacillus was also present in a large number of the samples in quantities at least equaling 1,000 bacteria per cubic centimeter. There can be no doubt that milk containing over 500,000 bacteria per cubic centimeter is unfit for use as an uncooked food. Milk producers who send such milk to the city after having been carefully instructed by the dairy inspector in the methods of producing clean milk should have their milk excluded from use in the city if they continue to send milk with a bacterial content of over 500,000 to the city for sale.

The consensus of opinion among a large number of representative sanitarians is that all milk containing over 100,000 bacteria per cubic centimeter should be pasteurized before use, and that no milk containing over 1,000,000 bacteria per cubic centimeter should even be used for pasteurization. It will be seen that 624 specimens of the market milk out of 1,337

examined represented milk which according to the most recent opinion is even unfit for pasteurization and such milk should certainly be excluded from the city as a raw product. The section on milk also contains numerous interesting tables showing the comparison between the milk during the hot months and the cooler months, and between milk collected from the railroad stations and from the dairies, wagons, and shops. The relation between the high bacterial count and the deaths from intestinal diseases in infants is also shown in tables, and the gradual reduction in the average bacterial count for the years beginning with 1906 is contained in a special table.

The examination of the pasteurized milk shows the reduction of about 99 per cent. in the bacteria present, but the colon bacillus is often found in the pasteurized product. This should not be the case, and I should recommend that pasteurizing plants should be compelled to produce a product delivered to the consumer containing 50,000 bacteria per cubic centimeter or less, and showing the absence of the colon bacillus in 0.1 cubic centimeter.

It is well known that cream contains about three times as many bacteria as the mixed milk, and the results of the bacteria per cubic centimeter as obtained from ice cream seem to bear out this result. The table will show the high bacterial counts from ice cream in detail, but it is rare to find a bacterial count under 1,000,000 per cubic centimeter. This emphasizes the importance of the pasteurization of the cream used for making this delicacy. Eighty-eight per cent. contained more than 1,000,000 bacteria per cubic centimeter, the highest bacterial counts, as should be expected, being during July, August and September.

The examination of raw oysters as they arrive in the market is not a very satisfactory procedure, as the oysters should be examined at the beds and scored according to the system of the Committee of the American Public Health Association. The intestinal organisms do not seem to be very frequent in

small quantities of water such as 0.1 cubic centimeter, but the proper condition of the oysters can only be obtained by sanitary surveys of the oyster beds in the bay and its tributaries. The table shows that some of the oysters have quite high bacterial counts, twenty-eight out of fifty-nine having a bacterial content of over 10,000 bacteria per cubic centimeter. The clams do not show such high bacterial counts.

Results of the work in the clerical department show an increase of the laboratory examinations for 1911. The mortality in cases of diphtheria treated by antitoxin is also encouraging, being only 0.8 per cent. as compared to a mortality of 50 per cent. before the use of antitoxin. The presence of diphtheria bacilli in the noses of contacts in which the throats are negative is described in the section referring to the report of the throat inspectors, and the distribution of culture material and the work of the laboratory inspectors are found in the body of the report. The special investigation concerning the treatment of the Baltimore drinking water by means of calcium hypochlorite shows that the treatment has been effective in reducing the number of bacteria and special intestinal bacteria in the water. The typhoid cases and deaths showed a comparative decrease after the treatment was installed, and this data is all given in tables in the report.

In conclusion, I desire to thank Drs. F. W. Hachtel, W. J. Schmitz, and H. W. Stoner, Messrs. Harry J. Campbell, Edward Kelly, and Harry Rush, and Miss L. R. Sullivan, for the faithful performance of their duties. I also wish to recognize the faithful work of the laboratory assistants, Fred Berger, Arnold Gunther, George Considine, and Harry Maloney. I wish especially to thank Dr. F. W. Hachtel for great assistance in the preparation of this report.

Respectfully submitted,

Wm. Royal Stokes,
Bacteriologist.

REPORT

OF THE

INSPECTORS OF THROATS

Report of the Inspectors of Throats.

BALTIMORE, January 1, 1912.

DR. JAMES BOSLEY,
Commissioner of Health.

DEAR SIR:—We herewith submit a report of the work done in that division of your Department under our charge for the year ending December 31, 1911.

In all there were 5,179 cultures taken after diphtheria for fumigation; of these 1,036 were taken by the attending physicians and 4,143 by the Inspectors of Throats representing this Department.

TABLE NO. 1—*Cultures Taken by Attending Physicians.*

YEAR 1911.	Negative.	Positive.	Totals.
January	138	24	162
February	48	11	59
March	140	30	170
April	69	25	94
May	25	5	30
June	18	5	23
July	16	3	19
August	56	12	68
September	56	0	56
October	64	20	84
November	102	30	132
December	116	23	139
Totals	848	188	1,036

TABLE NO. 2—*Cultures Taken by Throat Inspectors.*

YEAR 1911.	Negative.	Positive.	Totals.
January	477	40	517
February	350	30	380
March	527	34	561
April	286	17	303
May	137	2	139
June	87	2	89
July	123	27	150
August	204	12	236
September	252	20	272
October	392	13	405
November	409	48	457
December	566	88	654
Totals	3,810	333	4,143

TABLE NO. 3—*Total Number of Cultures Taken for Fumigation.*

YEAR 1911.	Negative.	Positive.	Totals.
January	615	64	679
February	398	41	439
March	667	64	731
April	355	42	397
May	162	7	169
June	105	7	112
July	139	30	169
August	260	24	284
September	308	20	328
October	456	33	489
November	511	78	589
December	682	111	793
Totals	4,658	521	5,179

The striking difference in the percentage of positive cultures taken by attending physicians for disinfection over those taken by the Inspectors of Throats is due to the fact that in most instances the attending physician takes a culture from the throat of the *patient only,* with the request that if the culture be found free from diphtheria bacilli the Department take the cultures from the other inmates of the infected house. So, in a large majority of cases, this Department takes a culture from the throat of the patient after the throat has already been proven free of diphtheria bacilli.

The above tables show a marked increase in the number of cultures taken; while in 1910 there were 3,401 cultures taken in all, during 1911 there were 5,179.

During the last several months we have been taking cultures from the nose of the patient as well as the throat. In all, 738 cultures have been taken from the nose, of which 686 were negative and fifty-two were positive. This proportion of positive cultures from the nose we think would demonstrate the necessity of the nose cultures as well as the throat cultures from a patient recovering from diphtheria.

During the past year we have also taken twenty-one cultures in carrier cases of epidemic cerebro-spinal meningitis, of which nine were positive. These carrier cases containing the organisms of epidemic meningitis were isolated until the cultures proved negative.

Respectfully submitted,

W. P. Stubbs, M. D.
B. P. Herzog, M. D.
Throat Inspectors.

ANNUAL REPORT FOR 1911

DIVISION OF FOOD AND

DAIRY INSPECTION

Report of the Chemical Laboratory.

BALTIMORE, January 1, 1912.

DR. JAMES BOSLEY,
Commissioner of Health.

DEAR SIR:—I herewith respectfully submit a report of the work accomplished in the Division of Food and Dairy Inspection during the year ending December 31, 1911.

MILK.

The amount of milk received at the various railroad depots during the year was 8,443,947 gallons, an increase of 369,702.5 gallons over the amount received during 1910. The total amount produced within a radius of fifteen miles of the city and hauled in by wagon was 2,190,000 gallons. It must be borne in mind, however, that this figure is constantly changing and does not approach in accuracy the figures in Table No. 1, which are compiled from the statements furnished by the various railroad companies. These give an average daily consumption of 29,300 gallons, which, on the basis of a population, including the Metropolitan District, of approximately 679,000, gives a per capita consumption of about .34 pint of milk per day.

DAIRY FARM INSPECTION.

Prior to the summer of 1911, no inspections were made of dairy farms shipping milk to Baltimore other than the 160 producers within a distance of fifteen miles of the city. However, with the appointment of a Chief Inspector, a beginning was made on this most important phase of milk inspection, an inspection of the conditions under which milk is actually produced.

Logically, this is the first step in the various stages connecting the production of milk with its ultimate consumption. It naturally includes an inquiry as to the health of the herd, sanitary condition of the stables and methods used in the handling of the milk; in other words, the equipment and methods in use at the producing farm. Too great emphasis cannot be placed on this side of our work and the very urgent need for an increase in our facilities for extending the inspection. It will only be as a result of careful and painstaking instruction of the producer that marked improvement will be noted in our milk supply. Then and only then will we have a clean and wholesome milk. As the first step in inaugurating a system of milk inspection, the dairy-farm score card as modified by the Dairy Division of the U. S. Dept. of Agriculture was adopted as the official form for recording the results of such investigations. This score card furnishes an accurate, mathematical expression for all existing conditions. At a glance, one is able to detect points of weakness and strength in any particular and the producer, by studying his score, can quickly note wherein he can improve his score. It is now in use in over 170 of the largest cities of the country and this further insures uniformity in the methods of inspection.

With few exceptions, we have found a willingness on the part of producers to co-operate with us and many of them have taken kindly to the suggestions of our inspector.

As a result of this work, we have scored 268 dairy farms with an average score of 42.82 out of a possible score of 100. Of these scores, thirteen scored below thirty and forty-three below thirty-five. Many very interesting details were obtained from these scores. For instance, ninety-one farms had no milk room, depending either on the barn or barn yard for all the handling of the milk and milk utensils; 185 or more than one-half had no form of cooler whatever, depending entirely on immersing the cans in spring water to accomplish the desired cooling. Of these 268 producers, only fifty-one immediately remove the milk from the stable after milking.

Only eight had herds which had been tuberculin tested within one year of date of inspection. Only one farm was found where the small top milking pail was in use. In many places, the cows were covered with manure; manure allowed to be piled immediately outside the barn; little or no attempt was made to wash and wipe the udders before milking; light and ventilation were deficient in many places. The results of this preliminary investigation clearly indicate the necessity of more inspectors for this important work. Such conditions can only be improved by repeated inspections and instruction in the well-recognized methods of cleanliness as applied to milk. After such due course of instruction and no improvement is noted in the score, the product of such a place should be excluded from the city.

Another highly significant fact is that only eight producers had their herds tuberculin tested. The necessity of having a city's milk supply free from the danger of tuberculosis is beyond dispute. It is highly urgent that some provision be made for freeing our herds from this disease, either by the city or by the State. With this end in view, one or more veterinarians should be appointed to make the necessary examinations. During the coming year, the Bacteriological Laboratory, working in co-operation with the Division of Food and Dairy Inspection, will make an investigation of the prevalence of tuberculosis in our market milk.

In our inspection of city milk plants, the standard score card of the U. S. Dept. of Agriculture was adopted, 206 such establishments were scored with an average score of 48.57 out of a possible 100. Ten scored below forty and forty-five below forty-five. The minimum score was 32.50 and the maximum score was 77.60.

MILK TEMPERATURE INVESTIGATIONS.

The investigations concerning the rise in temperature in milk during transportation, begun in the summer of 1910, were continued during the summer of 1911. The results are presented in tabular form in Tables II-X. The general plan of

the investigation was to note the time of arrival and temperature of any given shipment at the shipping station; temperature and time of placing on the car; temperature and time of arrival in Baltimore. By this means, the rise in temperature on the platform, the rise in transit and the total rise for each can were obtained.

TABLE No. II.

WESTERN MARYLAND RAILROAD, LINWOOD STATION.

Platform covered. Distance 44 miles. Car loaded 6.36 A. M. Air temperature 69.5 degrees Fahrenheit. Car temperature 73 degrees Fahrenheit. Weather clear. Train arrived in Baltimore 8.45 A. M. Temperatures taken on August 11, 1911.

A	B	C	A-B	B-C	A-C	a	b	c	a-b	b-c	a-c
A. M.	A. M.	A. M.	Min.	Hr. M.	Hr. M.						
6.18	6.36	8.45	18	2.09	2.27	66.0	66.5	69.0	0.5	2.5	3.0
6.19	6.36	8.45	17	2.09	2.26	75.5	75.0	74.0	—0.5	—1.0	—1.5
6.20	6.36	8.45	16	2.09	2.25	65.0	65.5	67.5	0.5	2.0	2.5
6.21	6.36	8.45	15	2.09	2.24	65.0	65.5	67.0	0.5	1.5	2.0
6.21	6.36	8.45	15	2.09	2.24	65.5	66.0	68.0	0.5	2.0	2.5
6.22	6.36	8.45	14	2.09	2.23	60.0	61.0	64.0	1.0	3.0	4.0
6.22	6.36	8.45	14	2.09	2.23	60.0	61.0	64.0	1.0	3.0	4.0
6.23	6.36	8.45	13	2.09	2.22	60.0	61.0	64.0	1.0	3.0	4.0
6.24	6.36	8.45	12	2.09	2.21	73.5	73.5	74.0	.....	0.5	0.5
6.24	6.36	8.45	12	2.09	2.21	67.0	67.0	69.0	.....	2.0	2.0
6.25	6.36	8.45	11	2.09	2.20	67.0	67.0	68.0	.....	1.0	1.0
6.26	6.36	8.45	10	2.09	2.19	67.5	68.0	69.0	0.5	1.0	1.5
6.27	6.36	8.45	9	2.09	2.18	74.5	74.5	73.5	.....	—1.0	—1.0
6.27	6.36	8.45	9	2.09	2.18	69.0	68.5	69.0	—0.5	0.5	.....
6.28	6.36	8.45	8	2.09	2.17	69.0	69.0	69.5	.....	0.5	0.5
6.29	6.36	8.45	7	2.09	2.16	63.5	64.0	66.0	0.5	2.0	2.5

A—Time of arrival at shipping station.
B—Time of loading on train.
C—Time of arrival in Baltimore.
A-B—Time between arrival at shipping station and loading on car.
B-C—Time on train.
A-C—Total time between arrival at shipping station and arrival in Baltimore.
a—Temperature when brought to railroad station.
b—Temperature when loaded on car.
c—Temperature when received in Baltimore.
a-b—Rise in temperature while standing on station platform.
b-c—Rise in temperature while on train.
a-c—Total rise in temperature.

TABLE No. III.

MARYLAND AND PENNSYLVANIA RAILROAD, HIGHLAND STATION.

Platform uncovered. Distance 38.2 miles. Car loaded 6.47 A. M. Air temperature 68 degrees Fahrenheit. Car temperature 70 degrees Fahrenheit. Weather fairly clear. Train arrived in Baltimore 8.40 A. M. Temperatures taken on August 8, 1911.

A	B	C	A-B	B-C	A-C	a	b	c	a-b	b-c	a-c
A. M.	A. M.	A. M.	Min.	Hr. M.	Hr. M.						
6.15	7.05	8.40	50	1.35	2.25	57.0	59.0	62.5	2.0	3.5	5.5
6.15	6.55	8.40	40	1.45	2.25	68.0	68.0	68.5	.....	0.5	0.5
6.15	.....	9.05	....	.....	2.50	58.0	.....	63.0	.....	.....	5.0
6.15	.....	9.05	....	.....	2.50	60.5	.....	63.5	.....	.....	3.0
6.15	6.55	8.40	40	1.45	2.25	59.5	60.0	62.5	0.5	2.5	3.0
6.30	.....	9.05	....	.....	2.35	59.0	.....	62.0	.....	.....	3.0
6.30	7.10	8.35	40	1.25	2.05	62.0	63.0	64.5	1.0	1.5	2.5
6.30	7.10	8.40	40	1.30	2.10	62.0	63.0	65.0	1.0	2.0	3.0
6.30	.....	9.05	....	.....	2.35	60.5	.....	63.5	.....	.....	3.0
6.35	7.00	8.35	25	1.35	2.00	59.0	60.0	62.0	1.0	2.0	3.0
6.35	7.15	8.35	40	1.20	2.00	59.0	60.0	63.0	1.0	3.0	4.0
6.35	7.15	8.35	40	1.20	2.00	66.5	66.0	67.0	—0.5	1.0	0.5
6.35	.....	9.05	....	.....	2.30	64.0	.....	65.5	.....	.....	1.5
6.35	7.15	8.35	40	1.20	2.00	62.5	64.0	65.0	1.5	1.0	2.5
6.40	7.10	8.40	30	1.30	2.00	62.5	67.0	67.0	4.5	.....	4.5

A—Time of arrival at shipping station.
B—Time of loading on train.
C—Time of arrival in Baltimore.
A-B—Time between arrival at shipping station and loading on train.
B-C—Time on train.
A-C—Total time between arrival at shipping station and arrival in Baltimore.
a—Temperature when brought to railroad station.
b—Temperature when loaded on car.
c—Temperature when received in Baltimore.
a-b—Rise in temperature while standing on station platform.
b-c—Rise in temperature while on train.
a-c—Total rise in temperature.

TABLE No. IV.

BALTIMORE AND OHIO RAILROAD, FREDERICK DIVISION, MT. AIRY.

Platform uncovered. Distance 42.7 miles. Car loaded 6.58 A. M. Air temperature 71.5 degrees Fahrenheit at 6.30 A. M. Car temperature 76.5 degrees Fahrenheit. Weather clear. Train arrived in Baltimore 8.45 A. M. Temperatures taken on August 15, 1911.

A	B	C	A-B	B-C	A-C	a	b	c	a-b	b-c	a-c
A. M.	A. M.	A. M.	Min.	Hr. M.	Hr. M.						
6.30	7.30	8.40	60	1.10	2.10	64.5	66.5	68.0	2.0	1.5	3.5
6.45	7.20	8.40	35	1.20	1.55	64.5	65.0	68.0	0.5	3.0	3.5
6.45	7.25	8.40	40	1.15	1.55	68.5	69.0	70.0	0.5	1.0	1.5
6.45	7.30	8.35	45	1.05	1.50	70.0	70.5	70.5	0.5	.....	0.5
6.45	7.15	8.35	30	1.20	1.50	72.0	73.0	73.0	1.0	.....	1.0
6.45	7.10	8.35	25	1.25	1.50	68.0	69.0	70.0	1.0	1.0	2.0
6.45	7.35	8.40	50	1.05	1.55	59.5	62.0	65.5	2.5	3.5	6.0
6.45	7.20	8.45	35	1.25	2.00	59.5	61.0	65.0	1.5	4.0	5.5
6.45	7.15	8.45	30	1.30	2.00	60.0	62.0	66.0	2.0	4.0	6.0
6.45	7.20	8.45	35	1.25	2.00	60.0	61.5	65.0	1.5	3.5	5.0
6.50	7.40	8.40	50	1.00	1.50	60.0	62.0	68.0	2.0	6.0	8.0
6.50	7.30	8.40	40	1.10	1.50	65.5	66.5	68.0	1.0	1.5	2.5
6.50	7.30	8.40	40	1.10	1.50	65.5	66.5	68.0	1.0	1.5	2.5
6.50	7.45	8.40	55	0.55	1.50	71.0	71.5	72.0	0.5	0.5	1.0
6.55	7.15	8.45	20	1.30	1.50	65.5	66.0	68.0	0.5	2.0	2.5

A—Time of arrival at shipping station.
B—Time of loading on train.
C—Time of arrival in Baltimore.
A-B—Time between arrival at shipping station and loading on train.
B-C—Time on train.
A-C—Total time between arrival at shipping station and arrival in Baltimore.
a—Temperature when brought to railroad station.
b—Temperature when loaded on car.
c—Temperature when received in Baltimore.
a-b—Rise in temperature while standing on station platform.
b-c—Rise in temperature while on train.
a-c—Total rise in temperature.

TABLE No. V.

WESTERN MARYLAND RAILROAD, HANOVER BRANCH, HAMPSTEAD STATION.

Platform uncovered. Distance 30 miles. Car loaded 6.42 A. M. Air temperature 70.5 degrees Fahrenheit at 6.15 A. M. Car temperature 70 degrees Fahrenheit. Weather clear. Train arrived in Baltimore 8.25 A. M. Temperatures taken on August 20, 1911.

A	B	C	A-B	B-C	A-C	a	b	c	a-b	b-c	a-c
A. M.	A. M.	A. M.	Min.	Hr. M.	Hr. M.						
6.20	6.42	8.25	22	1.43	2.05	70.0	67.0	67.5	—3.0	0.5	—2.5
6.25	6.42	8.25	17	1.43	2.00	60.0	61.0	62.5	1.0	1.5	2.5
6.25	6.42	8.25	17	1.43	2.00	56.5	.....	59.5	.....	.....	3.0
6.28	6.42	8.25	14	1.43	1.57	57.0	58.0	59.0	1.0	1.0	2.0
6.30	6.42	8.25	12	1.43	1.55	57.0	58.0	60.0	1.0	2.0	3.0
6.30	6.42	8.25	12	1.43	1.55	66.5	67.0	68.0	0.5	1.0	1.5
6.32	6.42	8.25	10	1.43	1.53	62.5	61.0	62.0	—1.5	1.0	—0.5
6.35	6.42	8.25	7	1.43	1.50	63.0	63.0	63.5	.....	0.5	0.5
6.37	6.42	8.25	5	1.43	1.48	65.5	65.0	65.5	—0.5	0.5	.....
6.37	6.42	8.25	5	1.43	1.48	62.0	63.0	67.5	1.0	4.5	5.5
6.39	6.42	8.25	3	1.43	1.46	60.0	61.0	63.0	1.0	2.0	3.0
6.40	6.42	8.25	2	1.43	1.45	58.0	58.5	60.0	0.5	1.5	2.0
6.41	6.42	8.25	1	1.43	1.44	61.5	63.0	63.0	1.5	.....	1.5

A—Time of arrival at shipping station.
B—Time of loading on train.
C—Time of arrival in Baltimore.
A-B—Time between arrival at shipping station and loading on car.
B-C—Time on train.
A-C—Total time between arrival at shipping station and arrival in Baltimore.
a—Temperature when brought to railroad station.
b—Temperature when loaded on car.
c—Temperature when received in Baltimore.
a-b—Rise in temperature while standing on station platform.
b-c—Rise in temperature while on train.
a-c—Total rise in temperature.

TABLE No. VI.

PHILADELPHIA, BALTIMORE AND WASHINGTON RAILROAD, PHILADELPHIA DIVISION, MAGNOLIA STATION.

Platform covered. Distance 19.5 miles. Car loaded 7.40 A. M. Air temperature 73 degrees Fahrenheit. Car temperature 74 degrees Fahrenheit. Weather slightly cloudy. Train arrived in Baltimore 8.21 A. M. Temperatures taken on August 12, 1911.

A	B	C	A-B	B-C	A-C	a	b	c	a-b	b-c	a-c
A. M.	A. M.	A. M.	Min.	Hr. M.	Hr. M.						
7.05	7.40	8.21	35	0.41	1.16	67.5	68.0	69.0	0.5	1.0	1.5
7.07	7.40	8.21	33	0.41	1.14	70.5	71.0	71.5	0.5	0.5	1.0
7.20	7.40	8.21	20	0.41	1.01	69.0	69.0	71.0	.....	2.0	2.0
7.22	7.40	8.21	18	0.41	0.59	71.0	71.0	71.5	.....	0.5	0.5
7.24	7.40	8.21	16	0.41	0.57	68.5	68.5	69.0	.....	0.5	0.5
7.25	7.40	8.21	15	0.41	0.56	71.5	72.0	72.5	0.5	0.5	1.0
7.26	7.40	8.21	14	0.41	0.55	73.5	73.0	73.0	—0.5	.....	—0.5
7.27	7.40	8.21	13	0.41	0.54	67.5	68.0	69.0	0.5	1.0	1.5
7.28	7.40	8.21	12	0.41	0.53	68.5	69.0	69.5	0.5	0.5	1.0
7.30	7.40	8.21	10	0.41	0.51	67.0	67.5	68.5	0.5	1.0	1.5

A—Time of arrival at shipping station.
B—Time of loading on train.
C—Time of arrival in Baltimore.
A-B—Time between arrival at shipping station and loading on train.
B-C—Time on train.
A-C—Total time between arrival at shipping station and arrival in Baltimore.
a—Temperature when brought to railroad station.
b—Temperature when loaded on car.
c—Temperature when received in Baltimore.
a-b—Rise in temperature while standing on station platform.
b-c—Rise in temperature while on train.
a-c—Total rise in temperature.

TABLE No. VII.

MARYLAND AND PENNSYLVANIA RAILROAD STATION, PYLESVILLE.

Platform uncovered. Distance 39.9 miles. Car loaded 6.38 A. M. Air temperature 71 degrees Fahrenheit at 6 A. M. Car temperature not obtained. Weather clear. Train arrived in Baltimore 8.40 A. M. Temperatures taken on June 23, 1911.

A	B	C	A-B	B-C	A-C	a	b	c	a-b	b-c	a-c
A. M.	A. M.	A. M.	Min.	Hr. M.	Hr. M.						
6.04	6.58	9.19	54	2.21	3.15	59.5	61.5	64.0	2.0	2.5	4.5
6.04	6.43	9.07	39	2.12	3.03	66.0	65.0	67.0	—1.0	2.0	1.0
6.11	6.55	9.17	44	2.22	3.06	52.5	56.0	59.0	3.5	3.0	6.5
6.11	6.54	9.16	43	2.22	3.05	53.5	57.0	60.0	3.5	3.0	6.5
6.14	6.57	9.17	43	2.20	3.03	59.5	61.0	63.0	1.5	2.0	3.5
6.14	6.44	9.08	30	2.24	2.54	64.0	65.0	66.0	1.0	1.0	2.0
6.19	6.45	9.08	26	2.23	2.49	62.5	63.5	65.0	1.0	1.5	2.5
6.22	6.40	9.05	18	2.25	2.43	69.0	69.0	69.5	.....	0.5	0.5
6.22	6.45	9.09	23	2.24	2.47	64.0	64.5	65.5	0.5	1.0	1.5
6.24	6.53	9.15	29	2.22	2.51	65.0	65.0	66.0	.....	1.0	1.0
6.26	6.57	9.18	31	2.21	2.52	58.0	59.5	62.5	1.5	3.0	4.5
6.28	6.50	9.13	22	2.23	2.45	56.2	58.0	60.5	1.8	2.5	4.3
6.29	6.45	9.10	16	2.25	2.41	69.0	69.0	69.5	.....	0.5	0.5
6.22	6.50	9.14	28	2.24	2.52	65.0	66.0	66.0	1.0	.....	1.0
6.29	6.47	9.12	18	2.25	2.43	62.0	63.0	64.0	1.0	1.0	2.0
6.30	6.51	9.15	21	2.24	2.45	58.0	59.0	61.0	1.0	2.0	3.0
6.31	6.47	9.13	16	2.26	2.42	61.0	62.5	63.0	1.5	0.5	2.0
6.32	6.46	9.09	14	2.23	2.37	55.5	57.0	61.0	1.5	4.0	5.5

A—Time of arrival at shipping station.
B—Time of loading on train.
C—Time of arrival in Baltimore.
A-B—Time between arrival at shipping station and loading on train.
B-C—Time on train.
A-C—Total time between arrival at shipping station and arrival in Baltimore.
a—Temperature when brought to railroad station.
b—Temperature when loaded on car.
c—Temperature when received in Baltimore.
a-b—Rise in temperature while standing on station platform.
b-c—Rise in temperature while on train.
a-c—Total rise in temperature.

TABLE No. VIII.

Northern Central Railroad Station, White Hall.

Platform uncovered. Distance 26.5 miles. Car loaded 6.55 A. M. Air temperature 67 degrees Fahrenheit at 5.49 A. M. Car temperature 72 degrees at 7.42 A. M. Weather clear. Train arrived in Baltimore 8.20 A. M. Temperatures taken on June 29, 1911.

A	B	C	A-B	B-C	A-C	a	b	c	a-b	b-c	a-c
A. M.	A. M.	A. M.	Min.	Hr. M.	Hr. M.						
6.18	7.05	8.19	47	1.14	2.01	61.0	63.0	64.0	2.0	1.0	3.0
6.18	7.04	8.26	46	1.22	2.08	57.5	61.0	63.5	3.5	2.5	6.0
6.19	7.02	8.30	43	1.28	2.11	62.5	65.5	65.0	3.0	—0.5	2.5
6.20	7.07	8.27	47	1.20	2.07	67.0	67.5	67.5	0.5	.....	0.5
6.22	7.14	8.20	52	1.06	1.58	57.5	59.0	60.0	1.0	1.0	2.5
6.22	7.20	8.18	58	0.58	1.56	58.0	59.5	61.0	1.5	1.5	3.0
6.24	7.21	8.21	57	1.00	1.57	63.0	64.0	64.0	1.0	.....	1.0
6.25	7.05	8.19	40	1.14	1.54	66.0	67.0	67.0	1.0	.....	1.0
6.26	7.07	8.30	41	1.23	2.04	59.5	60.0	62.0	0.5	2.0	2.5
6.29	7.07	8.25	38	1.18	1.56	62.0	63.0	63.0	1.0	.....	1.0
6.30	7.09	8.23	39	1.14	1.53	64.5	65.0	66.0	0.5	1.0	1.5
6.31	7.12	8.22	41	1.10	1.51	71.0	70.0	70.0	—1.0	.....	—1.0
6.33	7.16	8.16	43	1.00	1.43	62.0	64.0	64.0	2.0	.....	2.0
6.33	7.18	8.17	45	0.59	1.44	61.5	63.0	63.5	1.5	0.5	2.0
6.34	7.19	8.17	45	0.58	1.43	58.5	60.0	61.0	1.5	1.0	2.5
6.35	7.18	8.18	43	1.00	1.43	58.5	60.0	61.0	1.5	1.0	2.5
6.36	7.15	8.32	39	1.17	1.56	69.5	69.0	72.0	—0.5	3.0	2.5
6.37	7.13	8.36	36	1.23	1.59	70.0	69.0	70.0	—1.0	1.0	.....
6.42*	7.05	8.24	23	1.19	1.42	47.0	49.0	53.5	2.0	4.5	6.5

*Cream.

A—Time of arrival at shipping station.

B—Time of loading on train.

C—Time of arrival in Baltimore.

A-B—Time between arrival at shipping station and loading on train.

B-C—Time on train.

A-C—Total time between arrival at shipping station and arrival in Baltimore.

a—Temperature when brought to railroad station.

b—Temperature when loaded on car.

c—Temperature when received in Baltimore.

a-b—Rise in temperature while standing on station platform.

b-c—Rise in temperature while on train.

a-c—Total rise in temperature.

TABLE No. IX.

Western Maryland Railroad Station, New Windsor.

Platform uncovered. Distance 41 miles. Car loaded 6.45 A. M. Air temperature 71 degrees at 6.30 A. M. Car temperature 71 degrees at 7.05 A. M. Weather clear. Train arrived in Baltimore 8.32 A. M. Temperatures taken on June 24, 1911.

A	B	C	A-B	B-C	A-C	a	b	c	a-b	b-c	a-c
A. M.	A. M.	A. M.	Min.	Hr. M.	Hr. M.						
6.00	6.55	8.30	55	1.35	2.30	62.0	63.0	64.0	1.0	1.0	2.0
6.00	.....	8.30	....	.....	2.30	68.0	.....	68.0	.....	.....	.....
6.00	.....	8.30	....	.....	2.30	58.5	.....	61.5	.....	.....	3.0
6.10	.....	8.30	....	.....	2.20	64.0	.....	65.0	.....	.....	1.0
6.15	.....	8.30	....	.....	2.15	67.5	.....	67.5	.....	.....	.....
6.15	6.50	8.30	35	1.40	2.15	62.0	63.0	64.0	1.0	1.0	2.0
6.15	6.55	8.30	40	1.35	2.15	66.0	66.0	66.0	.....	.....	.....
6.15	7.00	8.30	45	1.30	2.15	63.0	64.0	63.0	1.0	—1.0	.....
6.15	7.00	8.30	45	1.30	2.15	63.0	64.5	64.0	1.5	—0.5	1.0
6.25	.....	8.30	....	.....	2.05	69.5	.....	68.5	.....	.....	—1.0
6.25	.....	8.30	....	.....	2.05	58.0	.....	60.0	.....	.....	2.0
6.25	.....	8.30	....	.....	2.05	62.0	.....	64.0	.....	.....	2.0
6.25	.....	8.30	....	.....	2.05	59.0	.....	62.0	.....	.....	3.0
6.30	6.50	8.30	20	1.40	2.00	62.5	63.0	64.0	0.5	1.0	1.5
6.35	7.00	8.30	25	1.30	1.55	60.0	61.0	62.0	1.0	1.0	2.0
6.35	6.55	8.30	20	1.35	1.55	57.5	59.0	62.0	1.5	3.0	4.5
6.35	6.50	8.30	15	1.40	1.55	59.0	60.0	61.0	1.0	1.0	2.0
6.35	7.00	8.30	25	1.30	1.55	56.0	57.0	59.5	1.0	2.5	3.5
6.35	6.55	8.30	20	1.35	1.55	61.0	61.5	62.5	0.5	1.0	1.5
6.35	6.50	8.30	15	1.40	1.55	59.0	60.0	62.0	1.0	2.0	3.0
6.35	7.00	8.30	25	1.30	1.55	63.0	64.0	63.0	1.0	—1.0	.....
6.40	6.50	8.30	10	1.40	1.50	59.0	59.5	62.0	0.5	2.5	3.0
6.40	.....	8.30	....	.....	1.50	68.0	.....	67.0	.....	.....	—1.0

A—Time of arrival at shipping station.
B—Time of loading on train.
C—Time of arrival in Baltimore.
A-B—Time between arrival at shipping station and loading on train.
B-C—Time on train.
A-C—Total time between arrival at shipping station and arrival in Baltimore.
a—Temperature when brought to railroad station.
b—Temperature when loaded on car.
c—Temperature when received in Baltimore.
a-b—Rise in temperature while standing on station platform.
b-c—Rise in temperature while on train.
a-c—Total rise in temperature.

The results obtained confirmed those of the preceding summer. No general rule can be given as to the exact rise in temperature which will occur in a given can of milk under the given conditions on account of the influence of the surrounding cans. For this reason, some of the cans actually showed a fall in temperature. However, the average rises in temperature will show approximately what rise in temperature would be expected at the given car temperature and under the influence of existing conditions. The least efficient cooling was noted among the producers shipping from Magnolia Station on the Philadelphia Division of the Pennsylvania Railroad, the average temperature of all cans examined having been 69.4 degrees Fahrenheit. The most efficient cooling was noted among the producers at Pylesville Station on the Md. & Pa. R. R., the average temperature on arrival at the shipping station having been 61.1 degrees Fahrenheit.

The temperature standard for the admission of milk into Baltimore City for the summer of 1911 was sixty-five degrees Fahrenheit, five degrees lower than the standard for the preceding year. All shippers were duly notified of this change and urged to make suitable provision for increasing cooling; 8,715 gallons of milk were condemned on account of being either too hot or churned or both. Effective types of milk coolers together with cooling by ice or ice-water are absolutely necessary in order to properly cool milk. Protection during transportation is also necessary as evidenced by the prevailing practice of producers hauling milk to the shipping station in uncovered wagons and then allowing the cans to remain on the uncovered platform for lengths of time varying from ten to fifty minutes in many cases.

The temperature work was extended to include the temperatures of all samples, station, wagon, store, and lunch room taken during the summer months. These results are appended in Tables XI-XIV and show the minimum temperature, maximum temperature, and average temperature of all samples

taken each day from May 19th to September 1st. These daily averages are based on from forty to seventy samples in the case of station, from ten to thirty samples in the case of wagon, from five to fifteen in the case of store, and from six to nine in the case of lunch room samples.

With the exception of one or two days, the daily average temperature for station milk fell below the standard for admission but in most cases only slightly.

The temperature standard for the city is fifty degrees Fahrenheit and the averages for the wagon, store, and lunch room samples indicate how closely this temperature was attained.

DAILY TEMPERATURE

Tables Nos. 11, 12, 13 and 14

TABLE NO. XI—*Daily Temperature Record of Station Samples.*

MAY.				JUNE.				JULY.				AUGUST.			
DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.
1.....	....	....	.....	1.....	54	67	61.6	1.....	60	66	62.4	1.....	58	65	63.7
2.....	....	....	.....	2.....	50	65	60.5	2.....	61	65	63.1	2.....	53	68	63.9
3.....	....	....	.....	3.....	58	64	61.4	3.....	60	68	63.5	3.....	56	66	62.9
4.....	....	....	.....	4.....	60	68	63.9	4.....	....	....	.....	4.....	60	68	64.1
5.....	....	....	.....	5.....	55	65	61.4	5.....	58	71	64.6	5.....	52	69	63.1
6.....	....	....	.....	6.....	54	65	57.9	6.....	50	71	63.3	6.....	60	68	64.1
7.....	....	....	.....	7.....	54	65	59.5	7.....	50	71	63.9	7.....	56	68	63.8
8.....	....	....	.....	8.....	54	65	60.0	8.....	61	73	.....	8.....	54	69	63.5
9.....	44	65	54.3	9.....	54	65	61.0	9.....	....	....	.....	9.....	60	70	64.6
10.....	44	65	57.7	10.....	60	65	61.9	10.....	62	72	66.3	10.....	58	68	63.0
11.....	44	67	56.8	11.....	60	65	63.0	11.....	61	73	67.7	11.....	60	68	64.0
12.....	46	65	58.7	12.....	56	67	62.4	12.....	57	72	64.6	12.....	50	68	63.3
13.....	44	55	49.5	13.....	56	67	62.1	13.....	61	70	64.3	13.....	60	68	64.1
14.....	55	60	56.3	14.....	55	68	61.3	14.....	60	72	63.0	14.....	50	68	63.0
15.....	46	65	54.7	15.....	58	65	59.9	15.....	50	72	61.4	15.....	60	68	64.0
16.....	48	68	59.1	16.....	50	66	62.8	16.....	60	68	63.9	16.....	58	68	63.3
17.....	48	66	60.9	17.....	55	66	59.0	17.....	60	73	64.4	17.....	60	68	63.7
18.....	48	68	60.0	18.....	58	64	60.7	18.....	58	70	63.0	18.....	60	68	64.2
19.....	54	67	62.0	19.....	40	68	60.8	19.....	52	65	61.2	19.....	55	68	61.6
20.....	....	....	.....	20.....	56	65	62.0	20.....	58	70	63.3	20.....	48	66	59.3

21	....	....	.....	21	50	67	61.1	21	60	65	62.9	21	50	66	59.7
22	52	68	62.3	22	54	65	59.8	22	58	67	61.9	22	50	65	60.6
23	56	65	62.5	23	58	67	62.0	23	58	62	60.0	23	55	68	61.8
24	55	65	60.2	24	55	65	59.9	24	60	68	64.3	24	46	68	62.6
25	55	65	61.7	25	60	65	62.1	25	50	65	60.7	25	54	68	62.4
26	54	65	60.3	26	52	67	62.2	26	55	65	60.5	26	60	71	64.4
27	....	....	.....	27	58	69	63.9	27	56	67	61.9	27	60	68	64.3
28	....	....	.....	28	58	70	63.4	28	55	65	61.1	28	57	74	65.3
29	54	67	61.7	29	56	67	61.7	29	54	66	61.1	29	55	70	65.0
30	....	....	.....	30	55	67	61.0	30	58	65	61.8	30	55	64	60.0
31	58	67	62.9					31	60	65	63.0	31	50	65	58.0
Avg. temperature..			59.0	Avg. temperature..			61.3	Avg. temperature..			63.0	Avg. temperature..			62.9

TABLE No. XII—*Daily Temperature Record of Wagon Samples.*

MAY.				JUNE.				JULY.				AUGUST.			
DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.
1.....	....	....	.....	1.....	45	60	51.8	1.....	....	....	.....	1.....	44	60	50.4
2.....	....	....	.....	2.....	45	56	50.3	2.....	51	54	52.3	2.....	40	60	52.7
3.....	....	....	.....	3.....	....	....	.....	3.....	50	56	51.7	3.....	44	60	53.2
4.....	....	....	.....	4.....	....	....	.....	4.....	....	....	.....	4.....	47	55	52.5
5.....	....	....	.....	5.....	45	60	52.9	5.....	45	60	48.8	5.....	....	....	.....
6.....	....	....	.....	6.....	40	58	49.3	6.....	40	60	48.5	6.....	....	....	.....
7.....	....	....	.....	7.....	40	55	49.3	7.....	44	55	51.7	7.....	44	56	51.6
8.....	....	....	.....	8.....	42	60	49.6	8.....	....	....	.....	8.....	38	62	50.7
9.....	40	57	48.9	9.....	40	55	48.5	9.....	....	....	.....	9.....	40	62	52.0
10.....	42	68	50.5	10.....	....	....	.....	10.....	45	60	52.8	10.....	40	58	52.0
11.....	45	65	54.3	11.....	....	....	.....	11.....	40	60	51.4	11.....	45	56	51.8
12.....	48	62	52.9	12.....	50	55	51.2	12.....	45	60	51.9	12.....	....	....	.....
13.....	....	....	.....	13.....	44	56	50.9	13.....	45	55	51.8	13.....	....	....	.....
14.....	....	....	.....	14.....	40	55	49.9	14.....	50	60	54.0	14.....	36	58	50.5
15.....	40	55	54.1	15.....	45	56	51.2	15.....	....	....	.....	15.....	45	60	52.5
16.....	40	55	47.7	16.....	45	65	52.3	16.....	....	....	.....	16.....	38	66	50.9
17.....	40	56	50.0	17.....	....	....	.....	17.....	40	52	48.3	17.....	38	58	50.8
18.....	45	60	52.9	18.....	44	55	47.7	18.....	42	65	52.1	18.....	40	65	51.0
19.....	48	62	52.8	19.....	42	61	49.9	19.....	38	54	49.1	19.....	....	....	.....
20.....	....	....	.....	20.....	45	56	51.9	20.....	42	57	50.2	20.....	....	....	.....

21	....	....	.....	21	40	56	48.2	21	45	65	52.3	21	38	60	49.1
22	50	60	52.9	22	40	69	52.1	22	....	....	.....	22	45	62	52.0
23	45	60	54.2	23	38	55	48.5	23	....	....	.....	23	40	55	50.4
24	57	65	60.5	24	....	....	.....	24	42	55	50.5	24	40	58	50.8
25	40	60	51.7	25	....	....	.....	25	....	....	.....	25	32	60	51.1
26	40	62	51.1	26	40	55	50.4	26	38	60	50.1	26	....	....	.....
27	....	....	.....	27	45	55	50.3	27	40	52	45.9	27	....	....	.....
28	....	....	.....	28	36	60	50.0	28	40	60	49.9	28	40	60	52.4
29	45	62	52.5	29	40	54	49.3	29	....	....	.....	29	....	....	.....
30	....	....	.....	30	40	54	48.9	30	....	....	.....	30	38	58	49.5
31	46	62	52.4					31	36	61	52.7	31	40	54	49.0
Avg. temperature..			52.5	Avg. temperature..			50.2	Avg. temperature..			50.8	Avg. temperature..			51.2

TABLE No. XIII—*Daily Temperature Record of Store Samples.*

MAY.				JUNE.				JULY.				AUGUST.			
DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.
1	....	....	.....	1	42	52	48.4	1	....	....	.....	1	50	55	52.5
2	....	....	.....	2	50	60	53.7	2	....	....	.....	2	40	60	50.0
3	....	....	.....	3	....	....	.....	3	....	....	.....	3	55	58	56.5
4	....	....	.....	4	....	....	.....	4	....	....	.....	4	....	....	.....
5	....	....	.....	5	....	....	52.0	5	....	....	56.0	5	....	....	.....
6	....	....	.....	6	....	....	55.0	6	....	....	.....	6	....	....	.....
7	....	....	.....	7	....	....	.....	7	....	....	.....	7	....	....	.....
8	....	....	.....	8	....	....	55.0	8	....	....	.....	8	....	....	.....
9	50	60	53.0	9	....	....	45.0	9	....	....	.....	9	....	....	.....
10	45	55	50.7	10	....	....	.....	10	....	....	.....	10	....	....	.....
11	35	50	42.3	11	....	....	.....	11	....	....	.....	11	....	....	.....
12	45	55	49.0	12	....	....	.....	12	....	....	.....	12	....	....	.....
13	....	....	.....	13	....	....	.....	13	45	50	48.7	13	....	....	.....
14	....	....	.....	14	....	....	.....	14	....	....	.....	14	....	....	58.0
15	40	55	48.8	15	55	66	59.2	15	....	....	.....	15	....	....	58.0
16	....	....	50.0	16	38	50	44.8	16	....	....	.....	16	42	60	53.8
17	....	....	.....	17	....	....	.....	17	....	....	.....	17	....	....	.....
18	....	....	.....	18	....	....	.....	18	....	....	.....	18	54	60	56.3
19	55	55	55.0	19	....	....	.....	19	....	....	.....	19	....	....	.....
20	....	....	.....	20	....	....	.....	20	50	52	51.1	20	....	....	.....

21				21			45.0	21				21			
22				22	50	54	52.0	22				22			
23				23	44	64	53.5	23				23			50.0
24				24				24	50	60	56.2	24	50	55	52.3
25	45	60	52.7	25				25				25	48	55	52.5
26	45	55	50.0	26				26			45.0	26			
27				27				27				27			
28				28				28				28	50	55	52.5
29	50	55	52.5	29	45	57	53.5	29				29			
30				30				30				30			
31	44	56	51.6					31	47	65	54.6	31	42	58	50.0
Avg. temperature			50.6	Avg. temperature			52.1	Avg. temperature			52.7	Avg. temperature			52.9

TABLE No. XIV—*Daily Temperature Record of Lunchroom Samples.*

MAY.				JUNE.				JULY.				AUGUST.			
DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.	DATE.	Minimum Temperature.	Maximum Temperature.	Average Temperature.
1	....	....	.....	1	42	55	48.6	1	....	....	.....	1	....	....	.....
2	....	....	.....	2	45	52	48.8	2	....	....	.....	2	40	50	44.9
3	....	....	.....	3	....	....	.....	3	....	....	.....	3	40	58	47.7
4	....	....	.....	4	....	....	.....	4	....	....	.....	4	40	50	48.0
5	....	....	.....	5	45	50	48.0	5	....	....	.....	5	....	....	.....
6	....	....	.....	6	40	50	47.0	6	....	....	.....	6	....	....	.....
7	....	....	.....	7	38	55	45.0	7	....	....	.....	7	....	....	.....
8	....	....	.....	8	....	....	.....	8	....	....	.....	8	....	....	.....
9	....	....	.....	9	35	45	41.2	9	....	....	.....	9	....	....	.....
10	....	....	.....	10	....	....	.....	10	....	....	.....	10	....	....	.....
11	40	55	43.8	11	....	....	.....	11	....	....	.....	11	....	....	.....
12	....	....	55.0	12	....	....	.....	12	....	....	.....	12	....	....	.....
13	....	....	.....	13	....	....	.....	13	....	....	.....	13	....	....	.....
14	....	....	.....	14	42	60	49.3	14	....	....	.....	14	....	....	.....
15	40	55	47.8	15	38	52	43.4	15	....	....	.....	15	40	50	44.7
16	....	....	.....	16	....	....	.....	16	....	....	.....	16	....	....	.....
17	....	....	.....	17	....	....	.....	17	....	....	.....	17	....	....	.....
18	50	50	50.0	18	....	....	.....	18	....	....	.....	18	....	....	44.0
19	....	....	.....	19	....	....	.....	19	....	....	.....	19	....	....	.....
20	....	....	.....	20	50	52	50.3	20	....	....	.....	20	....	....	.....

21				21				21				21				
22				22	48	52	49.6	22				22				
23				23				23				23				
24				24				24				24				
25				25				25				25				
26				26				26				26				
27				27	40	50	46.4	27				27				
28				28				28				28	40	60	49.7	
29				29	40	60	46.3	29				29				
30				30				30				30	40	50	46.2	
31	40	50	47.7					31				31	40	50	43.0	
Avg. temperature			47.3	Avg. temperature			47.0	Avg. temperature				Avg. temperature			47.3	

QUALITY OF MILK.

Notwithstanding the reasonable butter fat requirement of our Ordinance, considerable milk falling below this standard was received, and, wherever possible, was confiscated and destroyed. However, the averages, exclusive of milk condemned, show figures considerably in excess of our standard. The monthly butter-fat averages, based on all samples examined, exclusive of spills, are contained in Tables XV-XVIII. These tables also include the number of samples above and below the legal standard of 3.5%. Of these latter, by far the larger number only fell below to the extent of .1 to .2 of one per cent.

Table XIX shows the amount of milk actually examined at the railroad stations by the inspectors and shows a marked difference from the corresponding work for previous years. This difference is due to the fact that only such milk as was actually examined and tested was reported as examined whereas in former years practically all milk received was reported as examined. The amount reported examined in January is based on the old system, whereas all subsequent months are based on the new and exact method of only reporting such milk as was actually tested. On this basis, approximately 61,000 gallons were examined per month, giving a percentage of 8.73% of all milk received at the Railroad Depots as having been inspected.

During the year, close attention was given to the sanitary conditions of stores handling milk and especially to the conditions under which the milk was stored. When unsatisfactory conditions were found, the proprietor received a written notice of such conditions and was given a reasonable period of time to correct the same. At the expiration of this time limit, if the nuisance had not been abated, he was given a second notice to show cause in writing why his permit should not be revoked. In pursuance of this policy, quite a number of permits were revoked on account of temporary insanitary conditions. In

some instances, these places were afterwards caught selling milk without a permit and duly prosecuted.

As usual milk samples were collected from stores, wagons and stations for bacteriological examination and a detailed report of these examinations will be found in the Report of the Bacteriological Laboratory.

Abattoirs, slaughter houses, markets, bakeries and wharves were regularly visited throughout the year and thorough inspection of their sanitary condition and the character of the food stuffs made.

WATER.

Much attention was given to the analysis of drinking water from the springs in the public parks, pumps, wells, and other sources. No examination had been made of the springs in the parks since 1909 so this work was again resumed. As a result of this examination, all springs which were in use at the time were found to be in good condition. During the months of July and August, in consequence of an almost unprecedented condition in our city water supply, many analyses were made of abandoned pumps, wells and other sources which had been resurrected in the hope of relieving the situation. Most of these were found to be in bad condition and immediate steps taken to warn the public against using them.

The treatment of our water supply with calcium hypochlorite was begun during the summer and consequently daily analyses were made of the waters in the various reservoirs, standpipes and from faucets in different sections of the city and also from the Loch Raven and Lake Roland supplies prior to treatment. No increase in the amount of chlorine was noted after this treatment. The more detailed results in the lowering of the bacterial counts and the elimination of the colon bacillus will be found in the Report of the Bacteriological Laboratory.

Under miscellaneous analyses are included analyses of samples submitted by the Police, City Engineer, Fire, School

Board and other City Departments, as well as miscellaneous food products not already classified. The summarized record of laboratory analyses is appended. These tables also show the laboratory analyses for the last five years. In Tables XX-XXII it will be noted that there has been a very large increase in each line of work extending throughout the year. In milk analyses there has been an increase of 8,758 analyses or 55% more than the number done in 1910. In water and miscellaneous analyses there has been an even greater increase amounting in the former to 300% and in the latter 746% over the corresponding figures for 1910.

TABLE NO. XV—*Record of Station Samples*, 1911.

MONTHS.	Per Cent. Fat.	No. Above Legal Standard.	No. Below Legal Standard.	Total.
January	3.78	552	95	647
February	3.94	546	96	642
March	3.89	574	130	704
April	3.86	444	129	573
May	3.80	743	218	961
June	3.92	972	228	1,200
July	3.95	932	211	1,143
August	4.11	1,253	179	1,432
September	4.23	1,183	132	1,315
October	4.25	1,357	121	1,478
November	4.23	1,404	96	1,500
December	4.02	1,258	140	1,398
Average and total	4.00	11,218	1,775	12,993

TABLE NO. XVI—*Record of Wagon Samples*, 1911.

MONTHS.	Per Cent. Fat.	No. Above Legal Standard.	No. Below Legal Standard.	Total.
January	3.86	732	161	893
February	3.83	623	140	763
March	3.83	428	85	513
April	3.73	150	56	206
May	3.66	355	168	523
June	3.77	364	115	479
July	3.84	365	98	463
August	3.78	553	153	706
September	3.97	596	67	663
October	4.02	722	85	807
November	4.07	598	57	655
December	3.98	374	67	441
Average and total	3.86	5,860	1,252	7,112

TABLE NO. XVII—*Record of Store Samples,* 1911.

MONTHS.	Per Cent. Fat.	No. Above Legal Standard.	No. Below Legal Standard.	Total.
January	3.56	4	3	7
February	3.63	98	60	158
March	3.55	98	86	184
April	3.58	146	104	250
May	3.39	24	26	50
June	3.48	21	21	42
July	3.63	9	12	21
August	3.72	29	14	43
September	3.63	21	15	36
October	3.59	28	19	47
November	3.70	41	28	69
December	3.46	58	59	117
Average and total	3.58	577	447	1,024

TABLE NO. XVIII—*Record of Lunchroom Samples,* 1911.

MONTHS.	Per Cent. Fat.	No. Above Legal Standard.	No. Below Legal Standard.	Total.
January	4.19	8	1	9
February	.....	2	.....	2
March	.....	.....	.....	.....
April	.....	.....	.....	.....
May	3.57	18	17	35
June	3.49	46	42	88
July	.....	.....	.....	.....
August	3.74	32	14	46
September	3.91	66	22	88
October	4.47	20	2	22
November	3.69	22	11	33
December	3.68	72	38	110
Average and total	3.84	286	147	433

TABLE NO. XIX—*Showing Amount of Work Done by Milk Inspectors, by Months, During* 1911.

MONTHS.	Amount of Milk Received at Depots.	Amount of Milk Examined During 1911.	Amount of Milk Condemned.	Dairies Inspected.	Wagons Inspected.	Railroad Depots Visited.
January	685,107	*426,440	1,334.5	51	931	170
February	652,856	55,332	1,025.0	451	725	183
March	736,411	59,637	1,256.0	969	370	203
April	707,150	57,132	1,612.5	1,737	173	180
May	822,411	62,250	3,087.5	1,051	493	187
June	764,909	68,085	3,742.5	1,454	520	196
July	740,241	57,664	2,633.0	778	547	176
August	716,216	67,695	2,770.5	174	771	194
September	659,478	58,996	1,195.5	504	685	162
October	673,063	65,775	757.0	1,332	908	188
November	635,650	61,630	407.0	1,183	730	192
December	650,455	59,125	535.5	727	517	182
Total	8,443,947	1,099,761	20,356.5	10,411	7,370	2,213

*Figures based on old method of reporting.

TABLE NO. XX—*Showing the Increase in the Number of Milk Analyses in the Last Five Years.*

MONTHS.	1907.	1908.	1909.	1910.	1911.
January	503	338	898	969	1,802
February	385	380	775	1,309	1,829
March	488	1,565	993	1,642	1,566
April	426	1,499	941	1,519	1,242
May	499	1,631	1,063	1,437	1,801
June	470	1,139	1,049	1,431	2,217
July	494	1,159	1,184	1,225	1,845
August	380	971	1,270	1,499	2,525
September	397	1,200	1,442	1,407	2,246
October	257	1,010	1,492	1,403	2,521
November	223	930	1,527	918	2,506
December	247	950	1,397	943	2,360
Total	7,052	12,772	14,031	15,702	24,460

TABLE NO. XXI—*Showing the Increase in the Number of Water Analyses in the Last Five Years.*

MONTHS.	1907.	1908.	1909.	1910.	1911.
January	26	69	33	2	6
February	20	11	59	2	4
March	29	29	61	1	1
April	37	7	44	8	8
May	38	5	79	1	15
June	45	7	62	31	69
July	51	18	53	5	121
August	25	22	33	7	112
September	35	10	53	26	48
October	134	8	51	15	34
November	134	5	50	.....	14
December	59	6	8	14	26
Total	633	197	578	112	458

TABLE NO. XXII—*Showing the Increase in the Number of Miscellaneous Analyses in the Last Five Years.*

MONTHS.	1907.	1908.	1909.	1910.	1911.
January	58	21	18	6	24
February	27	16	15	11	28
March	18	10	21	13	22
April	45	7	10	3	117
May	13	21	19	8	8
June	16	12	20	7	43
July	7	5	18	15	79
August	11	13	11	11	65
September	11	10	9	23	34
October	6	7	17	5	63
November	12	2	29	1	447
December	13	10	46	10	26
Total	237	134	233	113	956

PROSECUTIONS.

After a fair warning had been given and reasonable time allowed for corrections to be made, prosecutions were instituted against twenty-three persons for violations of various food ordinances. The causes and results of the trials were as follows:

For selling milk containing less than three and one-half per cent. of butter-fats, four guilty; two dismissed; two warrants withdrawn. For selling milk containing less than three and one-half per cent. of butter-fats and also a preservative, two guilty. For selling milk containing a preservative, one guilty; two paroled; one stetted. For returning unwashed cans to stations, one paroled; one warrant withdrawn. For filling bottles on public highway, one guilty. For selling milk without a permit, four guilty. For selling oleomargarine as butter, two stetted on costs.

SUGGESTIONS.

An increase in the number of inspectors specially detailed for dairy-farm inspection is urgently needed. At least six

inspectors are needed to adequately carry out such a system of supervision. Unless most careful attention is given to the conditions under which our milk supply is produced, we cannot hope to secure much improvement in its cleanliness. Many of the practices now in force on our dairy farms are the result of ignorance and long-established custom and can only be eliminated by a comprehensive system of intelligent instruction by well-trained inspectors. Such educational work should be supplemented by lectures and demonstrations by various Officers of this Department at the many Grange and other Farmers' Meetings throughout the State.

In the city we have further need of educational work in instructing the public as to the danger lurking in an impure milk supply and urging them to the necessity of demanding a clean and wholesome milk. The establishment of a minimum score for the granting of a permit to sell milk in the city would also assist in correcting some of the evils now existing.

The laboratory work has been confined practically to examinations of milk and water. While the miscellaneous analyses include many other food products, yet none are made with any degree of regularity. There is a pressing need for the services of another chemist to take up a systematic examination of a variety of food-stuffs other than those already mentioned.

In conclusion I wish to express my appreciation of the interest and co-operation which have been manifested by all of the Food Inspectors and especially of the untiring efforts on the part of the Assistants in the Laboratory to enlarge our field of work and raise the standard of the work in this Department. Without this faithful appreciation of duty and many sacrifices of time and personal convenience, it would not have been possible to accomplish such a large amount of work.

Very respectfully,

Fred C. Blanck, Ph. D.,

Director and Chemist, Division of Food and Dairy Inspection.

REPORT

OF

SYDENHAM HOSPITAL

Report of W. P. Morrill, M. D.

DR. JAMES BOSLEY,
Commissioner of Health.

DEAR SIR:

I have the honor to transmit herewith the third annual report of Sydenham Hospital.

As my connection with the Hospital is about to cease, I have refrained from making any detailed recommendation as to its further development.

With my best wishes for the future of the Hospital, and bespeaking for my successor the same courteous consideration which I have always been accorded, I have the honor to be, sir,

Your obedient servant,

W. P. MORRILL, M. D.,
Resident Physician and Superintendent.

SYDENHAM HOSPITAL

STAFF.

W. P. Morrill, M. D.....Resident Physician and Superintendent
Miss I. P. Kamerer, R. N.....Superintendent of Nurses

ASSISTANT PHYSICIANS.

James S. Brotherhood, M. D.....Sept. 15, 1910, to Feb. 15, 1911
Ralph W. Reynolds, M. D.....Feb. 15, 1911, to July 15, 1911
James E. Quigley, M. D.....July 15, 1911, to Jan. 1, 1912

CONSULTING STAFF.

H. O. Reik, M. D.....Consulting Otologist
Frank Dyer Sanger, M. D.....Consulting Laryngologist
Harry Friedenwald, M. D.....Consulting Ophthalmologist
Arthur M. Shipley, M. D.....Consulting Surgeon

Report of Superintendent.

The beginning of 1911 found the Hospital practically full of scarlet fever patients, the lack of isolation facilities requiring the exclusion of all diphtheria cases and the applications for admission of scarlet fever patients being so great that it soon became necessary to limit admission to applicants from other institutions, those from private homes being refused.

During the first four months of the year, the refusals almost equalled the admissions, and a fairly high admission rate continued well into the summer.

According to the experience of the winter of 1910-1911, the admission rate was expected to begin a rapid increase about October 15, but even with an increase of cases in the city at large, this has not become evident as yet.

The explanation is difficult. No complaints have been heard except as to the inaccessibility of the Hospital from the city and the long detention, thus forcing the conclusion that it is more likely some undiscovered external cause.

The cost of maintenance for the year shows a marked increase over that for 1910, from $2.417 per patient per day to $2.90. Analysis of the expenditures shows this to be made for the most part as follows: In the steward's department, an increase of $0.302 per day, of which $.125 is in the payroll, and $0.118 in cost of raw food; administration expenses increased by $0.14, and professional care of patients $0.04; general house and property expenses increased $0.05.

The principal factors in this increase are, first, a distinct advance in the cost of raw food, about 18 per cent., for the most part on the perishables, staple provisions being but slightly increased, and the further fact that preparations were

made for handling a much larger number of patients than became necessary. In addition, there were some increases in salary, which affect the result to a moderate extent.

The increased administration cost is somewhat misleading, as the increase was really in the cost of professional care, but shows on the books as administration expense, as certain employees, whose duties were both administrative and professional, have been charged wholly to administration, though they have previously been divided between professional care and administration.

The cost of care of buildings has likewise increased, as they were so poorly constructed in the first place that deterioration is very rapid, and care, therefore, increased.

Ward "B" is still on paper, though it is hoped that progress toward actual building will be made before spring opens up. As a matter of fact, however, it makes but little difference whether it is built this year or next. The Mayor and City Council having failed to provide the necessary funds for increased quarters for employees, it will be impossible to open Ward "B" for patients until the latter part of 1913 at the earliest; that is to say, until such quarters are provided.

During the year a five-foot cement sidewalk has been laid from Eastern avenue to the end of the macadam, near Pratt street; the Administration Building shingled on the outside, a large amount of grading done about the grounds, and the interior of Ward "A" painted throughout.

In the coming year it will be necessary to entirely rebuild the porticoes of Ward "A," as they have been so long neglected that simple repair will not suffice. The floor of the stable must also be rebuilt as it has opened up so badly that a great deal of the wash-water, from the ambulance room and shower-bath especially, finds its way to the basement of the laundry building.

For new buildings, other than additional quarters for nurses, no very definite recommendation can be made, as the city is

so far behind its responsibilities in the matter of provision for contagious cases that it might just about as well have never begun, since, reckoning on the basis of other cities of her size and civic responsibilities, Baltimore is losing about four years out of every five.

The only remedy is to prepare a comprehensive plan, and properly financed, proceed to build a complete group. This wisely planned could be accomplished for about $250,000, but under the present cumbersome business methods, it would probably be unwise to start with less than $350,000 in sight. This would give adequate facilities for the present, and should be so planned that expansion would be possible without disarrangement of buildings already constructed.

In conclusion, I wish to express my gratitude to the employees of the Hospital, whose loyalty and faithful service are the principal factors in whatever success the Hospital has attained, and to the members of the consulting staff, who have so promptly and cheerfully responded to every call made upon them.

W. P. Morrill,
Superintendent.

DETAILED STATEMENT OF OPERATING EXPENSES.

ADMINISTRATION.

Salaries, supervision and clerical	$3,283 30	
Stationery, carfare and postage	263 32	
Library and miscellaneous	837 82	
Total administration		$4,384 44

PROFESSIONAL CARE OF PATIENTS.

Salaries—		
Nurses, maids and orderlies	$3,731 32	
Expense—		
Apparatus and instruments	333 93	
Medical and surgical supplies	1,048 21	
Pharmacy	345 63	
Equipment for nurses	64 07	
Total professional care of patients		5,523 16

DEPARTMENT EXPENSES.

Steward's Department—			
Labor	$1,976 62		
Expense—			
Dairy and eggs	1,745 32		
Provisions	907 64		
Meats	1,144 03		
Fruits and vegetables	606 45		
Supplies	308 40		
Laundry expense	698 70		
Total steward's department		$7,381 16	
Stable	$865 47		
Laboratory	48 61		
		914 08	
Total department expenses			8,295 24
Amount carried forward			$18,202 84

Amount brought forward		$18,202 84

GENERAL HOUSE AND PROPERTY EXPENSES.

Salaries	$1,004 51	
Expense—		
Heat, light and ice	2,474 78	
Maintenance (machinery, piping, etc.)	142 31	
Maintenance (building and real estate)	1,042 57	
Total general house and property expense		4,664 17
Total operating expenses for the year		$22,867 01

STATEMENT OF CURRENT REVENUE, DECEMBER 31, 1910, TO DECEMBER 31, 1911.

Private room patients	$102 96
Pay ward patients	212 09
Immigrant patients	28 00
Total	$343 05

GENERAL STATISTICS.

Patients in hospital at beginning of year	27
Patients in hospital at end of year	15
Maximum number of patients in hospital at one time	33
Minimum number of patients in hospital at one time	10
Daily average number of patients	21.6
Average number of days' stay of patients, scarlet fever	52.56
Average number of days' stay of patients, diphtheria	8.32
Total number of days' treatment given patients	7,880
Average daily cost per patient	$2.90
Total number of day's board given patients and employees	14,852
Average age of patients in years, scarlet fever	8.41
Total number of deaths	12
Number of persons dying within twenty-four hours	3
Number of deaths of persons under one year of age	.....
Percentage of deaths to total number of patients treated	6.186%
Death rate from scarlet fever	6.43%
Death rate from diphtheria, deducting deaths within twenty-four hours	2.44%
Death rate from diphtheria, total	7.31%
Average age of patients in years, diphtheria	13.3
Average cost of subsistence per person per day	$0.3033

Number of Days Maintenance of All Persons, By Months.

Months.	Patients.	Employees.	Total.
January	933	609	1,542
February	715	545	1,260
March	793	589	1,382
April	910	589	1,499
May	809	600	1,409
June	603	570	1,173
July	653	570	1,223
August	565	570	1,135
September	390	570	960
October	526	570	1,096
November	571	570	1,141
December	412	620	1,032
Total	7,880	6,972	14,852
Daily average	21.6	19.1	40.7

Admissions and Refusals, By Months.

Months.	Admissions.				Refusals.			
	Scarlet Fever.	Diphtheria.	Suspects.	Total.	Scarlet Fever.	Diphtheria.	Other Diseases.	Total.
January	14	1	....	15	7	3	12	12
February	9	....	2	11	2	4	7	13
March	17	7	1	25	1	4	2	7
April	17	3	1	21	7	4	4	15
May	12	....	....	12	....	2	3	5
June	13	1	....	14	....	....	1	1
July	10	2	....	12	....	....	....	....
August	7	1	1	9	....	....	....	....
September	7	2	....	9	....	....	....	....
October	12	9	....	21	....	....	1	1
November	7	10	....	17	....	....	12	12
December	6	4	....	10	....	1	....	1
Total	131	40	5	176	17	18	32	67

Report of Resident Physician.

A review of the medical work for the year just closed presents no particular points of difference from that of the previous year, except a slight decrease in the death rate from diphtheria; a somewhat smaller increase in the death rate from scarlet fever, and a marked decrease of the average age of patients admitted for the latter disease. The deaths of scarlet fever patients have not all been due, however, to this disease or its complications; one being due to broncho-pneumonia following a cross-infection with measles and a tuberculous hip. Of the remaining eight, three were admitted moribund, two not regaining consciousness after admission.

Of the three deaths from diphtheria, two died within twelve hours after admission, one a neglected case of ten days' standing from cardiac paralysis, the other, one of the typical "bull neck" cases, of six days' duration, from the same cause, probably aggravated by a profound general toxemia.

The measles case above referred to occurred during an epidemic of that disease arising from a scarlet fever patient who developed the measles on the seventh day in the hospital. The disease was limited to the ward in which it first made its appearance, but during its course every patient in the ward who had not already had the disease, developed it—seven in all.

This more than ever emphasizes the necessity of better isolation facilities, as it is more than probable that had it been possible to detain this child in isolation, as all should be detained, the other six would have been spared; one of them died, and one developed an empyema, which left behind it a sinus of the thoracic wall which, when last heard from, had not yet healed.

Other than the above, no cross infections have occurred during the year, which I think demonstrates the possibility of treating scarlet fever and diphtheria in the same building under proper precautions.

Again this year I am able to report that no cases of clinical nephritis have arisen in the wards, though several cases of "laboratory nephritis" have occurred, which bears out our report of last year in favor of the long continued rest in bed and a milk diet as the most efficient means of preventing this most serious and frequent complication of scarlet fever.

W. P. Morrill, M. D.,
Resident Physician.

Diagnosis.	Remaining Jan. 1, 1911.			Admitted.			Discharged.					Remaining Jan. 1, 1912.		
	Male.	Female.	Total.	Male.	Female.	Total.	Recovered.	Improved.	Died.	Transferred.	Total.	Male.	Female.	Total.
Scarlet fever	9	7	16	41	45	86	96	3	3	....	102	6	4	10
Recurrent	....	....	....	1	1	2	2	....	....	....	2	....	....	....
Adenitis	....	1	1	....	....	....	1	....	....	....	1	....	....	....
Otitis media	6	1	7	3	3	6	11	....	....	1	12	1	....	1
Otitis media, endocarditis	....	....	....	1	....	1	1	....	....	....	1	....	....	....
Otitis media, burns	....	....	....	1	....	1	1	....	....	....	1	....	....	....
Otitis media, sinusitis, pneumonia	....	....	....	....	1	1	....	....	1	....	1	....	....	....
Otitis media, Ludwig's angina	....	....	....	....	1	1	1	....	....	....	1	....	....	....
Otitis media measles, tuberculous hip, tuberculous meningitis	....	....	....	1	....	1	....	....	1	....	1	....	....	....
Otitis media, mastoiditis	....	....	....	....	1	1	1	....	....	....	1	....	....	....
Scarlatinal nephritis	....	....	....	1	2	3	3	....	....	....	3	....	....	....
Scarlatinal nephritis, otitis media, pneumonia	....	....	....	....	1	1	....	....	1	....	1	....	....	....
Scarlatinal nephritis, empyema, pneumonia	....	....	....	....	1	1	1	....	....	....	1	....	....	....
Scarlatinal nephritis, otitis media, mastoiditis	....	....	....	1	....	1	1	....	....	....	1	....	....	....
Mastoiditis	....	2	2	....	2	2	1	....	1	....	1	....	....	....
Measles	....	....	....	1	1	2	2	....	....	....	2	....	....	....
Measles, otitis media	....	....	....	1	2	3	2	....	....	....	2	1	....	1
Measles, otitis media, Ludwig's angina pneumonia, empyema	....	....	....	....	1	1	1	....	....	....	1	....	....	....
Measles, pneumonia	....	....	....	1	....	1	1	....	....	....	1	....	....	....

Diphtheria	....	....	....	....	1	1	1	....	....	....	1	....	....	....
Diphtheria, adenitis, otitis media	....	....	....	....	1	1	1	....	....	....	1	....	....	....
Trachoma	....	....	....	1	....	1	....	....	....	....	....	1	....	1
Tuberculous hip	....	....	....	1	1	2	1	....	1	....	2	....	....	....
Burns	....	1	1	....	....	....	1	....	....	....	1	....	....	....
Infected wound	1	....	1	....	....	....	1	....	....	....	1	....	....	....
Pneumonia	....	....	....	1	1	2	1	....	1	....	1	....	....	....
Tuberculous meningitis	....	....	....	1	....	1	....	1	....	....	1	....	....	....
Diphtheria, pharyngeal	....	....	....	13	19	32	30	....	....	....	30	....	2	2
Diphtheria, laryngeal	....	....	....	3	4	7	4	....	1	2	7	....	....	....
Broncho-pneumonia	....	....	....	....	1	1	1	....	1	....	1	....	....	....
Anginoid	1	....	....	1	....	1	....	....	1	....	1	....	....	....
Suspects—														
Admitting Diagnosis: Scarlet fever. / Discharge Diagnosis: Measles	....	....	....	....	2	2	2	....	....	....	2	....	....	....
Admitting Diagnosis: Diphtheria... / Discharge Diagnosis: No disease	....	....	....	....	1	1	1	....	....	....	1	....	....	....
Admitting Diagnosis: Diphtheria... / Discharge Diagnosis: Vincent's angina	....	....	....	1	....	1	1	....	....	....	1	....	....	....
Admitting Diagnosis: Diphtheria... / Discharge Diagnosis: Typh'd fever, ac. tons.	....	....	....	1	....	1	....	....	....	1	1	....	....	....
Admitting Diagnosis: Parotitis.... / Discharge Diagnosis: Parotitis	....	....	....	....	1	1	1	....	....	....	1	....	....	....

REPORT

OF THE

TUBERCULOSIS DIVISION

Report of the Tuberculosis Division.

BALTIMORE, January 1, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

The year ending December 31, 1911, marks the close of the second year's work of the Tuberculosis Division of the Health Department. This division, organized January 1, 1910, consists of a corps of fifteen special nurses whose object it is to give advice, instruction and nursing service to all patients in the city who are suffering with pulmonary tuberculosis. It is the aim of this division to bring under the nurses' supervision every patient in Baltimore thus affected, in both incipient and advanced stages, found among both the poor and the well-to-do. How well we are succeeding in this may be judged by an analysis made of 3,000 cases which passed through our hands this past year—of that number 1,006, or over 33 per cent. were known to some relief-giving agency, while the remaining two-thirds were not only able to support themselves and did not need any outside or charitable relief, but were in many instances in very comfortable circumstances. This answers the question which is often raised, that as city nurses we are necessarily confined in our work to the very poor; we find, however, that this is not true, and as time goes by we find that we are not only sought, but welcomed in the homes of those in good circumstances, who are equally in need of our services as those who are hampered by extreme poverty. This is as it should be, for the Health Department should be as freely called upon by all classes of citizens as are the Police and Fire Departments.

NURSING STAFF.

The nurses are all graduates from hospitals giving a three-years' training, and in addition all are registered nurses. No undergraduates, or ex-patients trained in special tuberculosis institutions are eligible for the work. Civil service examination is not demanded, but it is our object to recruit the staff to the highest degree of efficiency, since the personal equation plays such an important part in tuberculosis work. The nurses all wear blue denim uniforms, with simple hats and coats not of uniform design. The salary is seventy-five dollars a month, with no increase for length of service. A small amount of carfare is paid, ranging from fifty cents to a dollar or more a week for each nurse. This amount varies in each district, since the nurses in the smaller and more compact areas naturally use less carfare than those where the districts are large and less thickly populated. Two weeks' holiday is allowed each year, with pay. This is not enough, since the work is hard and two weeks a year is not sufficient rest. The nurses' work differs materially from that of all other city employes, and because of this we feel that there should be an exception to the rule which limits the holiday of city employes to two weeks. Length of service means that a nurse becomes more valuable in the work, but we are going to lose our nurses just as they become most experienced by this policy, which prevents their getting enough rest during the year.

CHARACTER OF WORK.

Every morning at 8.30 the nurses report for duty to the nurse-in-chief, at the Health Department. They make their reports of the work of the day before, turn in charts, records, and so forth, and receive their new work for the day. At the Health Department is a large supply closet containing all the prophylactic supplies needed for the patients, which sup-

plies consist of tin cups, fillers, paper napkins, water-proof pockets, disinfectant and books of information. Each nurse stocks her bag before leaving for her district, and distributes these supplies during her morning rounds. At noon each one reports at her branch office, of which the Department maintains seven, situated on the border lines of several adjoining districts. An hour is there spent for lunch and rest, during which time it is possible to reach the nurses, give them new calls, speak with them about the work, and so forth. Each branch office also contains a supply closet, so that the bags may be stocked again before going out for the afternoon's work. The nurses leave their districts at 4 P. M., but in addition there is about an hour's clerical work to be done, which they usually do at home. It is optional as to when this is done, but it must be finished and ready to hand in when the nurse reports for duty the next morning. Each nurse is in full charge of all the patients in her district. She cares for both early and advanced cases; gives advice and instruction to both patient and family; explains the nature of the disease; teaches the proper use and disposal of sputum cups, etc.; arranges for the examination of the patient's family or those in contact with the disease; attends to all details as to admission to a sanatorium or hospital, and in addition gives bed-baths and other nursing care to bedridden or dying cases. She is also the instructor who explains to the household the meaning and necessity for fumigation after the death or removal of the patient, and sees that the houses are properly cleaned when this fumigation is finished.

PROPHYLACTIC SUPPLIES.

The State Department of Health gives to the city Department of Health all the prophylactic supplies needed for the patients. During the year just ended, the tuberculosis di-

vision cared for 4,319 cases of tuberculosis, the supplies for which number consisted of:

	No.	Cost.
Tin cups	1,860	$140 00
Fillers	78,200	275 00
Paper napkins	410,000	255 00
Disinfectant (bottles)	3,690	369 00
Books of information	1,200	12 00
Total cost		$1,051 00

The reason that 4,319 cases were only given 1,860 sputum cups was because over 2,000 of these cases had been supplied with them and were carried over from the year before, and of the 1,816 new patients received during the year, a large number had been given sputum cups from the physicians at the time they referred the cases to us.

PATIENTS.

Patients are reported to us from a variety of sources, a large number being found by the nurses themselves. All cases found by nurses, as well as those reported by other agencies which cannot make a diagnosis, are sent to a dispensary or a physician who can do so. It is not always possible to get these suspicious cases examined promptly, due to many reasons, and because of this we find it necessary to carry on our visiting lists many patients who undoubtedly have tuberculosis, but which are not officially registered as such. These patients may be carried on in this way for weeks or even months, with so many symptoms of tuberculosis that the nurse cannot conscientiously discharge them; they are given supplies meanwhile, however, and eventually the diagnosis is secured and the case officially reported to the statistician. A chain of tuberculosis dispensaries, or clinics, situated at convenient points throughout the city, would make the diagnosis of these cases a much easier matter, and would greatly facilitate our work. In addition to patients of this class, we have a number of suspects reported to us by dispensaries or doctors, who give them to us to follow up until a diagnosis can be made. These suspi-

cious cases are carefully watched by the nurses as long as may be necessary, and finally, after successive re-examinations, are diagnosed one way or the other; if negative, they are of course discharged. It is impossible to maintain a visiting list composed entirely of positive cases, owing to the reasons here given, but this following up of probable cases is a most important and necessary part of the work. At the end of the year we have a visiting list of 2,772 patients, of which number 547 are suspicious or unregistered, while 2,225 are positive cases.

Sources from which the cases were reported:

	No.	Per Cent.
Found by nurses	358	19.71
Reported by physicians	349	19.21
Patients' family or friends	136	7.48
Visiting Nurse Association	115	6.33
Federated Charities	116	6.38
Phipps Dispensary	391	21.53
University Dispensary	83	4.57
City Medical Agencies	31	1.76
Bay View Office	64	3.52
State Sanatorium	71	3.90
Eudowood Sanatorium	35	1.98
Miscellaneous	67	3.73
Total	1,816	100.00

Number of patients under supervision, January 1, 1911		2,416
Old patients returned to visiting list		87
New patients during the year		1,816
Total		4,319
Number of patients died during the year	814	
Number that left the city	238	
Lost (address unknown)	246	
Not tuberculosis	249	
Total		1,547
Patients under supervision, December 31, 1911		2,772

Of this number, 2,772, we have 478 negroes, and 222 Jewish patients; while 273 are children of and under school age.

PHYSICIANS.

Of the 1,816 new patients reported to us during the year, 349 or 19.21 per cent. were referred to us by the physicians of the city. The extent to which physicians are reporting cases is not as great as it should be, although we are conscious of a change in their attitude in regard to us and to our work. This change, from a hostile to a friendly attitude, is a matter of encouragement, since we feel that the physician in private practice is still very largely in control of the tuberculosis situation. Yet there is great need of fuller and more complete co-operation. The busy physician has very little time at his disposal for chronic cases such as tuberculosis, and frequently the patient only pays him a visit or two and is then set adrift, often with no supplies at all, or else with a diminishing supply which he has no idea how to renew. We feel strongly that all these cases should be turned over to the Health Department as a matter of public welfare. Whether the doctor continues to visit the case or not, the visits of the nurse could in no wise (or should in no wise) contradict any instruction or advice he may have given, and on the contrary, her visits should be of the greatest assistance and help to him. During the year the physicians of the city had reports of positive findings made to them on 475 patients, specimens of whose sputa they had sent in. This reporting a case to the Bacteriological Laboratory is by no means the same thing as turning over the case to the tuberculosis nurses, so in each of these 475 cases the nurse was obliged to call up the doctor, and ask him if he wished her to visit his patient, give the supplies, and so forth. Permission to visit the patient was granted in 246 cases, and withheld in 93. One hundred and two cases were duplicate reports, the patients being already under the nurses' care, having been reported to her from other sources; 19 cases were of patients living out of the city, transients who had come in for an examination, etc., while 15 cases died

immediately after being reported to the Laboratory, or before we had time to call up and ask permission to visit him, the death certificate came in.

Of the 93 cases in which permission was refused, it may be noted that the reason given in almost every instance was because the physician did not want his patient to know he had tuberculosis. A patient who does not know he has tuberculosis is one who is not taught the nature of his disease and its danger as regards others. We are frequently called to these same cases later, through some other source, and invariably find them only too glad to get the supplies and bitterly resentful of the lost time which can never be made up. A city roused to the point of maintaining a staff of tuberculosis nurses, and other machinery needed for the elimination of tuberculosis, should endeavor to bring all, not merely some, of its tuberculous patients under supervision, and this should not be optional or left to the decision of those whose viewpoint is not always that of public health. It is time for the abolishment of the old ethics which places individual welfare above that of the community.

DISPENSARIES.

There are at present two special tuberculosis dispensaries in Baltimore, and we need more. One is the Phipps Dispensary, Johns Hopkins Hospital, and the other at the University of Maryland. The Phipps has its own staff of nurses for dispensary work, but they do not visit outside, so that all cases which come to it are referred to the Health Department nurses as a matter of routine. At the University dispensary, however, which has not its own nurses, our nurses are on duty three days a week for two hours a day. The nurses in the three districts which are near this dispensary each have one day a week, and on these days they can send their patients with the assurance that they will be there to receive them. This arrangement is a great advantage—the

nurses are thus able to keep in close touch with their patients and with the doctors, nor except for these two hours a week, which are most necessary for their work, are they taken away from the work of instruction and supervision in the homes. The chief, almost the only, value of the dispensary lies in its being a diagnosing agency; treatment amounts to practically nothing. Of its value as a diagnosing agency there can be no doubt, as the following figures will show. During the year 1910 there was reported to the tuberculosis division a total of 432 cases from the practising physicians of the city, while during the same time the specialists of one of the tuberculosis dispensaries reported to us 431 cases—practically the same number. These cases were carefully followed up and at the end of 1911 we are able to show these facts: Of the cases referred by the physicians, 233 or 53.93 per cent. died within a year after being reported, while of the dispensary cases, only 122 or 28.07 per cent. died within the year. Moreover, of the physicians' cases, 36.57 per cent. died within the first four months after being reported, as compared with 11.13 per cent. of the dispensary cases which died within the first four months. This striking difference may be accounted for in several ways, but one fact, however, remains clear, and that is that the cases reported by the dispensary were in far earlier stages of the disease that those reported by the physicians. Early recognition of the disease is an advantage to the individual and a great gain to the community; the patient has better chance for improvement, while he who is kept under supervision for a year or two preceding his death is less apt to infect those in contact with him than one who is not placed under such supervision until a few weeks or even days before he dies. As the welfare of the commuity demands this care and control, the agency which recognizes the need of this three times sooner than the general practitioner is one which is imperatively needed.

SANATORIA.

There are three sanatoria near Baltimore to which we can send our first and second stage cases. One is the State Sanatorium at Sabillasville, with a capacity of 200 beds, to which we sent 109 patients during the year. The other is Eudowood Sanatorium at Towson, with a capacity of 70 beds, to which we likewise sent 109. Both of these institutions report to us all cases which are discharged and return to the city, and in this way we can visit the patient at once, and endeavor to supervise his life at a most critical period. The Jewish Home for Consumptives at Reisterstown, with a capacity of 50 beds, received 33 of our patients during the year. The permanent value of these institutions depends upon the patients' ability or willingness to control their environment after discharge.

HOSPITALS FOR ADVANCED CASES.

Baltimore's facilities for caring for the advanced case are absolutely inadequate. At the Municipal Hospital for Tuberculosis there are 174 beds, for both male and female, white and colored patients. The beds for colored patients number 35, of which number there are 24 for men and 11 for women. This is the sole provision that the city makes for its colored tuberculous patients, of which we have nearly 500 cases on our visiting list. This grossly inadequate provision is not only a reproach to us as a community, but is a stupid and short-sighted policy as well; the colored servant, ill with tuberculosis, finds his way into the homes and the employment of those who fail to provide for him, and if for no other reasons than selfish ones, the community should take care of him during his last and most infectious stage. Until our hospital facilities are greatly increased we can never hope to get rid of tuberculosis. During the past year we were able to get only 291 patients admitted to the Municipal Hospital, out of the 4,319 patients which passed through our hands. Some of these patients remained on the waiting list before admission

as long as two or three months. And of the total number of cases placed on the waiting list, hoping for admission, it is safe to say that fully one-half died before their turn ever came. And to all these we must add the hundreds of others whom we did not place on the list at all, because the situation was so hopeless that we knew admission was impossible. The Bloede Hospital at Eudowood has a capacity of 30 beds for advanced cases, but that number is so small that it offers little relief. We have on our visiting list today hundreds of patients in the last stages of tuberculosis who are willing and whose families are eager and willing to let them go to a hospital where they may be adequately cared for. As nurses, we are putting all our effort on the care of these advanced cases, but in spite of all that we can do, the danger is only minimized, not removed. The home must be relieved of the patient in his last and most infectious stage unless our struggle against the disease is to be dragged on for interminable years.

RELIEF.

The nurses give out no relief at all, but work in close cooperation with the agents of the Federated Charities, to whom they report all families in need of assistance. A careful investigation into 3,000 cases showed that 1,006 of them were known to some charitable agency, of which number we found:

	Families.
Known to 1 relief-giving agency	858
Known to 2 relief-giving agencies	121
Known to 3 relief-giving agencies	25
Known to 4 relief-giving agencies	1
Known to 5 relief-giving agencies	2
Total	1,006

These figures probably understate the case, for doubtless many more people touched bottom than we know of, while

the progress of the disease will bring many now able to struggle unassisted into the ranks of those who ask for aid.

MILK AND EGGS.

According to our policy established last year, which was founded upon the experience bequeathed to us by the Visiting Nurse Association in their six years of special tuberculosis work, we do not ask for milk and eggs for our patients who are unable to buy them. Relief of this sort places a premium upon his remaining in his home, which in our opinion is the last place for a patient who is dependent upon charitable assistance. Nor do we believe that this diet is useful in itself, in a home which usually lacks all other requirements, as is frequently the case where poverty is so great that even a quart of milk a day cannot be purchased. If the case is an early one, the patient should go to a sanatorium; if advanced, the home should be relieved of the burden and danger of infection, and the patient be sent to a hospital. Under these circumstances, we can see no reason for giving milk and eggs except in occasional instances. If, for instance, the patient is on the waiting list for an institution, and to deprive him of this food would mean real distress, then of course it should be given; or a suspicious case, while diagnosis is pending, may well be given this extra feeding which will make it easier to determine what the trouble is; or a chronic case, temporarily disabled by an acute attack of grippe or from some similar reason, may well be helped in this way, but these are about the only exceptions that we believe should be made. During the year, one of the 4,319 patients whom we cared for, we found it necessary to ask for milk and eggs for but 34, which was given for the following reasons:

Advanced cases, waiting admission to hospital	10
Early cases, waiting admission to a sanatorium	3
Suspicious cases, waiting for diagnosis	12
Temporarily sick (grippe, childbirth, operation, etc.)	9
Total	34

FUMIGATION.

Part of the nurses' duties consist in teaching the families the nature and necessity of fumigation after the death or removal of the patients. They are carefully taught the meaning and value of this disinfection as well as the necessity for thorough house cleaning afterward, and the destruction of all infective material. The new steam sterilizer now nearing completion will mean that in future it will be possible to have sterilized much infective material (mattresses, etc.), which is now either being destroyed, or else retained by the family in its dangerous condition. To advise the householder to destroy this bedding often means considerable hardship and expense, yet there is no other course open to us, since the formaldehyde fumigation is perfectly superficial in its action. The nurses also teach the families to follow fumigation by a thorough house cleaning; we cannot compel this cleaning, but we find that as the result of this teaching out of a total of 1,098 houses fumigated after death, 850, or 78.32 per cent., were cleaned, which is a good showing and speaks well for the education the nurses have been able to impart. Those not cleaned were 172, or 15.66 per cent., while those vacant were 76, or 6.82 per cent. The figures after removal are not quite so good, since after removal many houses were left vacant with no one to clean them. Out of a total of 1,643, we find: cleaned, 1,068, or 65 per cent.; not cleaned, 273, or 16.61 per cent., and vacant, 302, or 24.46 per cent. It has been said that we should notify the landlord of these vacant houses and get him to clean them, but it is not always possible to find the landlord's address, nor is it likely that he would either have them cleaned himself, nor warn his new tenants; and it would also require additional nurses to attend to all this. In these cases we can but trust to the efficacy of fumigation and to the new tenant doing his own house cleaning on moving in. In addition to the cleaning done, we find that after death the number of mattresses and so forth destroyed

was 423, or 38.52 per cent., while the number of houses repapered, painted or whitewashed amounted to 107, or 9.74 per cent. The figures for destruction of infective material after removal are 95, or 5.78 per cent., and the number of houses repapered, etc., is 65, or 3.75 per cent.

Comparative Table Showing the Results of the Nurses' Teaching and Instruction as to the Necessity of Cleaning, etc., After the Houses Had Been Fumigated, Year 1911.

After Death.			After Removal.		
Houses cleaned	850	78.32%	Houses cleaned	1,068	65.00%
Houses not cleaned	172	15.66%	Houses not cleaned	273	16.61%
Houses vacant	76	6.82%	Houses vacant	302	24.46%
Total	1,098	.....	Total	1,643	.....
Bedding, etc., burned	423	38.52%	Bedding, etc., burned	95	5.78%
Rooms repapered, painted, etc	107	9.74%	Rooms repapered, painted, etc	65	3.95%

RESULTS.

The health department of a city cannot estimate its results in terms of individuals; we cannot, like the sanatorium, report so many cases arrested, so many quiescent, so many improved. Nor can we tell the number of patients restored to working efficiency; the number sleeping on roofs or porches, nor in any way attempt to give a personal basis to our work. Instead, in considering results, we are obliged to overlook the individual and to look at the matter from the standpoint of gain to the community. We are not at work to bring comfort and relief to the individual patient; the fact that we are constantly doing so is purely incidental. Our function is to try to reduce the amount of tuberculosis in the community, and this is best done by concentrating our efforts on care of the last-stage case. Thus every patient who dies, carefully attended to by the nurse, is a patient whose danger to his household has been minimized through her watchfulness and teaching. The closer this supervision is, and the more thoroughly he and his family are able to follow instructions, the less the danger of infection to those about him. We can count the number of deaths, but we cannot count the number of cases where infection was prevented. A falling death rate, however, means that the morbidity is also reduced, and there are less people in consequence to die of the disease. In Baltimore our death rate is being gradually reduced. In 1909, before the tuberculosis division was organized, the deaths from tuberculosis were 1,400. In 1910, the first year of our work, they fell to 1,234; in 1911, the year just ended, they fell to 1,158. We are not entirely responsible for this, but we certainly helped.

During the year we had altogether 4,319 patients under supervision, to whom we paid a total of 61,175 visits, or an average of over 14 visits a year to each one. Bed patients are visited two or three times a week, at the expense of ambulatory ones in good condition and able to take care of themselves, who are thus visited less often. Out of the 1,158 patients who died of tuberculosis in the past year, 814 of them

were under supervision by the nurses, which means that 70.02 per cent., as well as all those in contact with them, were being taught and cared for during the most highly infectious stages of the disease.

In ourselves we can never do more than slightly reduce the death rate from year to year. It will drop, as it is already doing, but we grow impatient at its slowness and the delay, for we are but one link in the chain, and in ourselves can accomplish little. We may congratulate ourselves on the falling death rate, but our machinery for fighting tuberculosis is inadequate. We need an increased force of nurses; we need more dispensaries for the diagnosis of cases; we need revision of our medical ethics and standards of what is due the community as a whole, and above all we need 600 more beds for advanced cases. At present we are not spending enough money to make sweeping inroads on the disease.

Respectfully submitted,

Ellen N. La Motte,
Nurse-in-Chief Tuberculosis Division.

TABLE I—*Sources From Which 1,816 New Patients Were Reported to the Tuberculosis Division During 1911, Showing the Percentage of Cases Reported From Each.*

1911.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Per Cent.
Found by nurses	38	29	30	44	22	27	29	32	30	27	31	19	358	19.71
Reported by physicians	34	26	38	33	27	34	18	27	31	28	32	21	349	19.21
Patient's family or friends	13	11	17	17	16	5	7	10	8	15	7	10	136	7.48
Visiting Nurse Association	13	15	12	16	8	8	5	3	13	5	13	4	115	6.33
Federated Charities	18	9	6	23	4	12	5	5	7	13	6	8	116	6.38
Phipps Dispensary	25	28	15	31	44	43	50	44	32	35	24	20	391	21.53
University Dispensary	14	10	9	6	9	5	6	5	1	7	4	7	83	4.57
City Medical Agencies	6	6	1	....	1	4	2	1	1	1	4	4	31	1.76
Bay View Office	7	5	5	3	5	4	5	11	6	2	4	7	64	3.52
State Sanatorium	6	4	8	2	2	4	3	8	6	12	4	12	71	3.90
Eudowood Sanatorium	6	1	2	1	1	2	....	....	....	12	4	6	35	1.98
Miscellaneous	3	13	11	7	6	1	1	....	5	6	7	7	67	3.73
Total	183	157	154	183	145	149	131	146	140	163	140	125	1816	100.00

TABLE II—*Showing Cases Under Supervision by the Tuberculosis Division Throughout the Year, With Number of New Cases Added Each Month and Number of Deaths and Discharges; Also Total Number of Nurses' Visits Each Month, With Average.*

1911.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Patients under supervision	2,416	2,469	2,504	2,542	2,594	2,607	2,614	2,644	2,708	2,738	2,782	2,791	2,416
Old patients returned	15	12	10	3	4	4	2	8	4	9	8	8	87
New patients	183	157	154	183	145	149	131	146	140	163	140	125	1,816
Total	2,614	2,638	2,668	2,728	2,743	2,760	2,747	2,798	2,852	2,910	2,930	2,924	4,319
Died	73	79	75	69	72	78	68	43	59	60	57	81	814
Left city	17	12	17	23	21	28	15	20	24	23	20	18	238
Lost	23	23	18	20	23	24	12	12	21	23	24	17	246
Not tuberculosis	32	20	16	16	20	16	8	15	10	22	38	36	249
Total	145	134	126	134	136	146	103	90	114	128	139	152	1,547
Balance	2,469	2,504	2,542	2,594	2,607	2,614	2,644	2,708	2,738	2,782	2,791	2,772	2,772
Gain	53	35	38	52	13	7	30	64	30	44	9	*18	357
Number of visits during month	4,931	4,495	4,642	4,896	5,169	5,419	4,971	5,062	4,944	5,532	5,303	5,811	61,175
Average number to each patient	—2	—2	—2	—2	—2	—2	—2	—2	—2	—2	—2	—2	+14

*Loss.

TABLE III—*Institutional Treatment Obtained for Patients During the Year.*

1911.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Patients sent to—													
Municipal Tuberculosis Hospital	14	23	24	34	29	23	29	25	24	22	25	19	291
State Sanatorium	12	10	9	6	9	8	10	10	19	7	4	5	109
Eudowood Sanatorium	10	11	8	8	8	9	7	9	11	6	12	10	109
Jewish Home for Consumptives	....	3	1	5	3	2	3	3	2	....	4	7	33
Dispensaries	186	169	189	185	168	120	96	94	131	182	172	225	1,917

TABLE IV—*Classification of Cases for Whom Milk and Eggs Have Been Obtained from Federated Charities.*

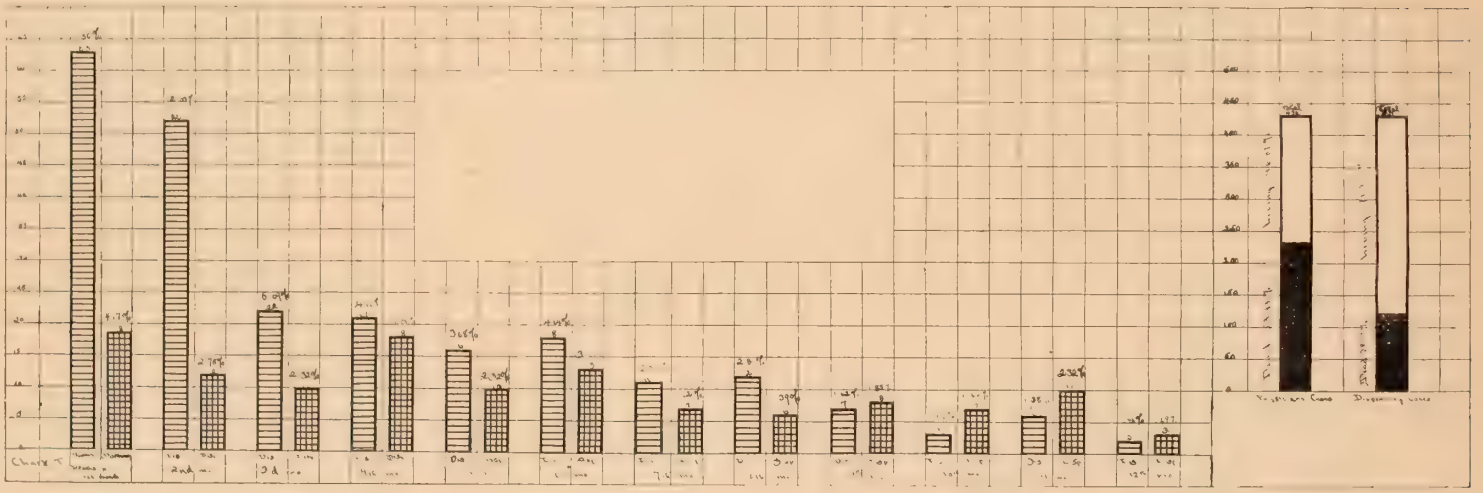
1911.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Advanced, waiting admission to hospital	1	1	1	....	4	1	....	....	1	1	....	....	10
Early, waiting admission to sanatorium	2	....	....	....	....	....	1	....	....	....	....	....	3
Suspicious, waiting diagnosis	....	1	1	5	3	1	....	....	1	....	....	....	12
Temporarily sick	....	1	1	1	2	....	1	....	....	1	1	1	9
Total	3	3	3	6	9	2	2	....	2	2	1	1	34

Out of a total of 4,319 patients under supervision during the year 1911, milk and eggs were asked for 34 patients. Thus: Advanced cases, waiting admission to hospital, 10; early cases, waiting admission to sanatorium, 3; suspicious cases, waiting diagnosis, 12; chronic cases, temporarily sick (grippe, pleurisy, etc.), 9; total, 34. The giving of milk and eggs is therefore a negligible factor in municipal care of tuberculosis; we see no necessity for it.

TABLE V—*Showing Results of Nurses' Instructions as to Cleaning of Houses, Destruction of Bedding, etc., After Death or Removal of Patients; Also Number of Houses Repapered, Painted, etc.*

1911.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November	December.	Total.	Per Cent.
After Death.														
Houses cleaned	60	80	94	78	68	85	79	39	77	66	53	71	850	78.32
Houses not cleaned	23	17	22	21	11	17	8	8	4	8	21	12	172	15.66
Houses vacant	8	8	5	8	9	4	6	1	8	9	3	7	76	6.82
Total	91	105	121	107	88	106	93	48	89	83	77	90	1098	100.00
Beding, etc., burned	37	35	42	46	23	43	50	13	32	32	32	38	423	38.52
Rooms papered, painted, etc	5	3	4	1	4	6	3	3	8	....	3	7	107	9.74
After Removal.														
Houses cleaned	63	75	64	86	96	87	101	97	87	116	91	105	1068	65.00
Houses not cleaned	21	24	31	35	19	21	19	19	17	22	31	14	273	16.61
Houses vacant	19	28	41	27	24	18	20	22	14	29	32	28	302	24.46
Total	103	127	136	148	139	126	140	138	118	167	154	147	1643	5.78
Bedding etc., burned	11	15	9	11	2	8	11	4	5	5	10	4	95	5.78
Rooms painted, papered, etc	11	3	5	9	....	9	3	1	5	5	5	9	65	3.95

Comparative chart, showing the difference between the class of cases reported by the physicians of the city, and the specialists connected with a tuberculosis dispensary. During 1910 the physicians reported 432 cases, of which number 233, or 53.93 per cent. died within a year, 36.57 per cent. dying within the first four months after being reported. During 1910 the dispensary reported 431 cases, of which number 122, or 28.07 per cent. died within a year, 11.13 per cent. dying within the first four months after being reported. However the difference in these figures may be accounted for, they offer striking evidence as to the value to the community of a special tuberculosis dispensary where early cases may be diagnosed and placed under supervision.



Summary of the chart, showing the number of cases, living and dead, of those reported by the two different agencies, the practicing physicians and the specialists of the dispensary. Value of the dispensary in making early diagnoses is clearly shown.

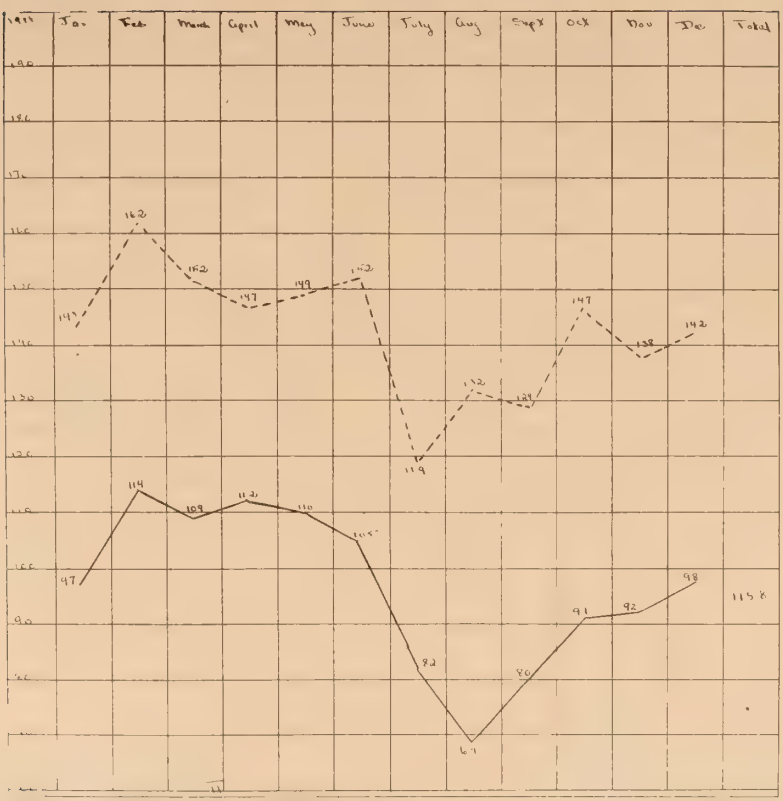


CHART No. 2—The lower (straight) line represents the number of deaths from pulmonary tuberculosis during 1911. The upper (broken) line represents the number of cases of tuberculosis registered with the Health Department. The number of cases registered greatly exceeds the number of deaths. The reverse of this was the case before the tuberculosis nurses came on duty; e. g., in 1909, there were 1,400 deaths and 919 cases registered.

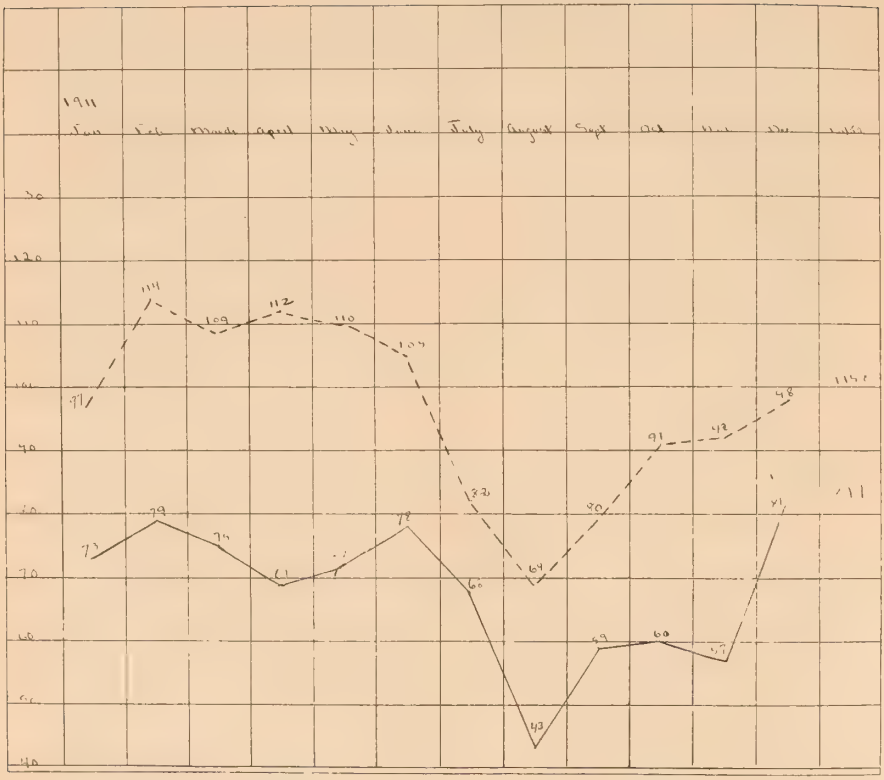


CHART No. 3—The upper (dotted) line shows the number of persons who died of pulmonary tuberculosis in 1911. The lower line shows the number of them who were under supervision of the tuberculosis nurses. Thus, in 1911, 70 per cent. of persons, during their last and most infectious stages, were under careful supervision and received nursing care and attention. Thirty per cent. of those who died, probably, did not receive such care.

In 1910, 1,234 persons died of pulmonary tuberculosis, of which number 776, or 62 per cent. were under the care of the Health Department nurses. The year 1911 shows a marked gain over 1910, but until 100 per cent. of these last-stage cases are cared for, the community must suffer.

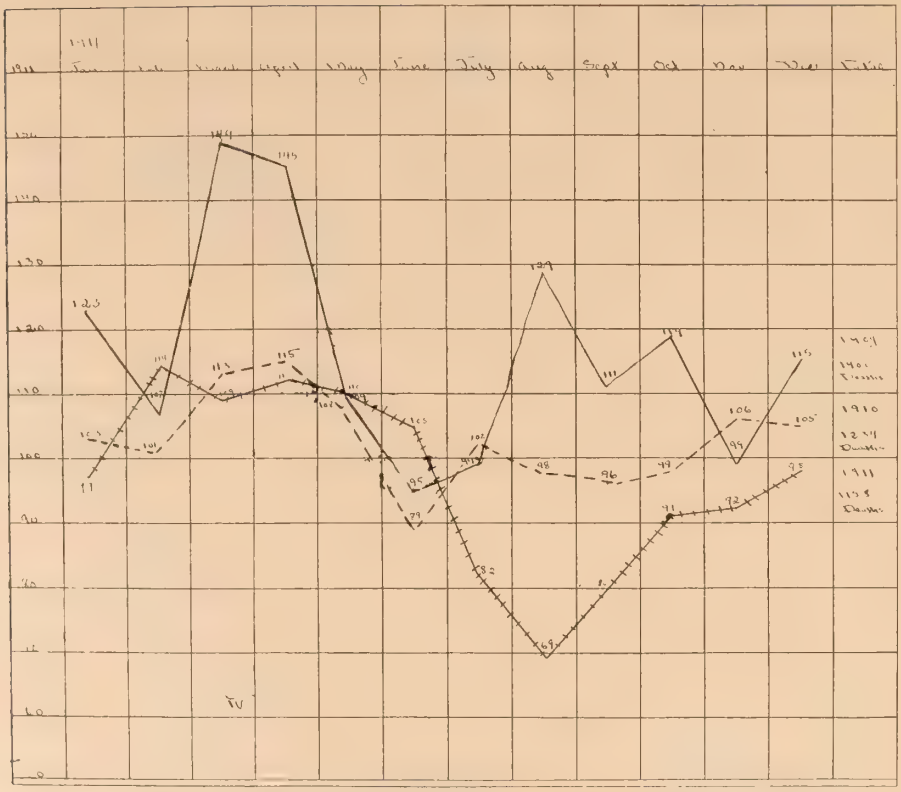


CHART No. 4—Baltimore's decreasing death rate from pulmonary tuberculosis. Fourteen hundred deaths in 1909 before the tuberculosis nurses went on duty. Twelve hundred and thirty-four deaths in 1910, first year's work of the tuberculosis nurses. Decrease of 166 deaths, or 11 per cent. decrease from the year preceding. Eleven hundred and fifty-eight deaths in 1911, second year's work of the tuberculosis nurses; decrease of 76 deaths, or 8 per cent. decrease over the year preceding.

Black line (straight), equals deaths in 1909; broken line (— —), deaths for 1910; crossed line (++), deaths for 1911.

REPORTS OF

Inspectors of Tenement and Lodging Houses

Superintendent of Fumigations and Burials

Superintendent of City Morgue

Inspector of Plumbing

Inspector of Bakeries

Registrar's Clerk

Index Clerk

Complaint Clerk

Commissioners' Clerk

Burial Permit Clerk

Nuisance Clerk

Report of Chief Tenement Inspector.

BALTIMORE, January 1, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

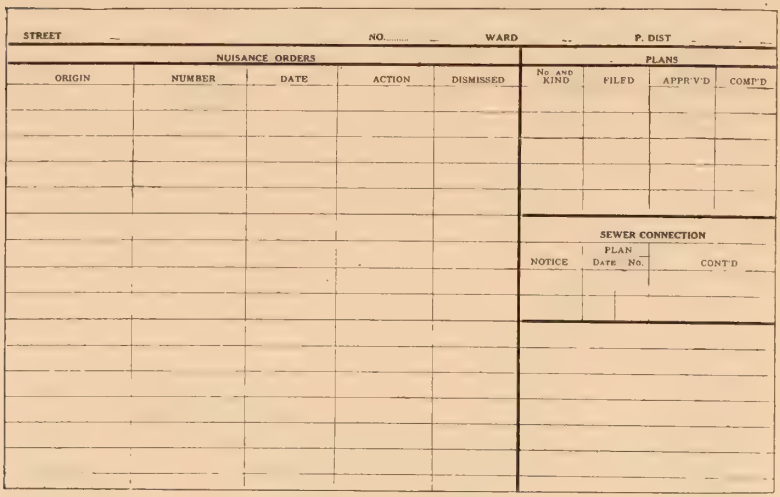
DEAR SIR:

I beg to submit my annual report as Chief Tenement Inspector for the year of 1911.

During the year the tenement and lodging house work has been reorganized, a card system of records has been worked out and introduced, a complete inspection of all the tenement houses in the city has been made, certain statistics in regard to them have been gathered and tabulated, and in addition 3,292 nuisances have been abated.

In planning the card system of records and inspections, the excellent system of the New York Tenement House Department was taken as a basis and simplified to meet local conditions. In planning the system four aims were kept in mind, viz.: first to keep a permanent record of each house showing how many notices have been sent out on the house, when they were issued, and when the nuisances which formed their basis were abated; second, to insure a regular inspection of all houses, with as little waste time to the inspector as possible; third, to insure thoroughness of inspection and accuracy in the reports thereof with as little effort to the inspector as possible; and fourth, to provide an adequate follow-up system for notices, so that all nuisances may be speedily abated.

The first of these aims (i. e., to keep a permanent record of each house) is secured by means of a set of blue cards (see Plate A), kept in an open file, which show the street,


STREET _____ NO. _____ WARD _____ P. DIST _____

NUISANCE ORDERS					PLANS			
ORIGIN	NUMBER	DATE	ACTION	DISMISSED	No. AND KIND	FILED	APPR'V'D	COMP'D

SEWER CONNECTION			
NOTICE	PLAN DATE	PLAN No.	CONT'D

PLATE A—Permanent history card; color blue; reduced one-half.

number, ward, and police district of every tenement house in the city. On each card there are columns showing the origin of each notice, i. e., whether the result of a regular inspection, a complaint, or a reinspection, the number of each notice sent out on the house, the date it was issued, a column for any legal action necessary in its enforcement, the date the nuisance was finally abated and the notice dismissed. In addition there are spaces in which may be entered a record of the plans for any alterations in the house, and a record of the sewer connections. These cards are arranged by street and number, in alphabetical order, and except for use in court, these cards are always in the file, so that it is possible at any time to tell whether or not a given house is a tenement and get a complete history of any nuisances found thereon.

The second aim (i. e., to insure a regular inspection of all houses) is secured by means of a record in which the houses are arranged by districts in the order in which with the least walking the inspections can be made. This record is at present kept in a book in which each house is entered by street and number in the following order: First, all the houses on a street having odd numbers, then those with even numbers, then those on the street next to it on the map running parallel, and so on to the end of the district; then the cross streets in the same order. Before each house there is a column showing the ward, and after it columns showing the serial number of the inspections, and the date when it is made. The inspection cards described in the next paragraph are made out as fast as they are needed in regular order as the houses are entered in the book; each card is given a serial number, which is entered in the column opposite the house, and the card given to the inspector. When the latter returns it properly filled out, the date of the inspection is entered in the appropriate column, showing that the card has been returned and when the inspection was made. This system of keeping the inspection record in a book, however, is not entirely satisfactory, since the insertion of new houses in their proper places is not possible without causing more or less confusion and untidiness in the book. In order to avoid this I would suggest a set of cards on which this record can be kept, which can be kept in the order desired and which will allow the insertion of new houses, the withdrawal of houses converted from tenements into some other use, the easy rearrangement of districts when this is advisable. This change cannot be made, however, unless the division is given additional filing space.

The third aim (i. e., to secure thorough inspections and accurate reports) is secured by means of the inspection card (see Plates B and C) on which by check marks the condi-

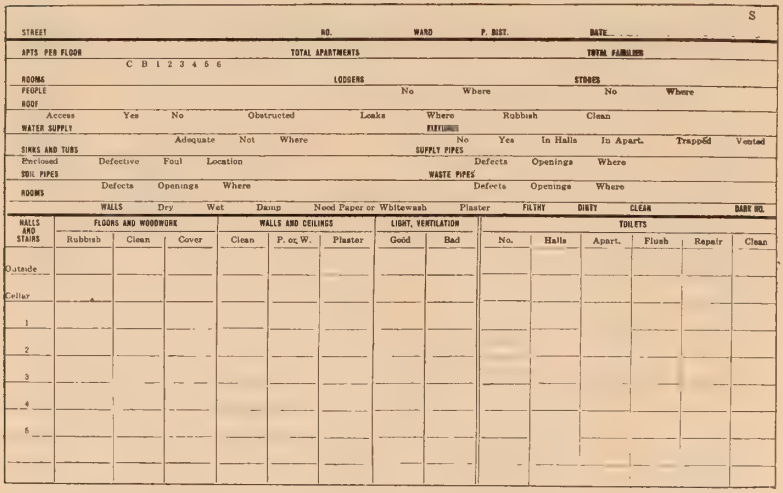


PLATE B—Front inspection card; color buff; reduced one-half.

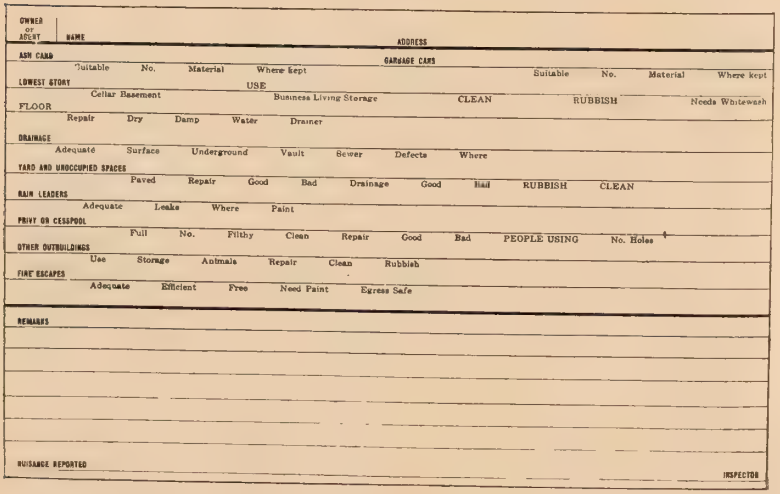


PLATE C—Back inspection card; color buff; reduced one-half.

tion, whether good or bad, of every part of the house over which the division has jurisdiction is shown, and in addition there is a space in which the number of stories, the number of apartments on each floor, the number of rooms in each apartment, and the number of people residing in each is shown. The card is arranged as far as possible in the order in which the house is inspected. The advantages of this method of inspection are that actual writings by the inspector is reduced to a minimum, the inspector's attention is called to each thing in every house for which he ought to look, and consequently nuisances are not overlooked, and since he has to record good conditions as well as bad, the card acts as a check on his honesty and accuracy, as a complaint might at any time show where a bad condition was reported good by him. Just how great this advantage is may be inferred from the fact that during 1910, 4,014 houses were inspected and 929 nuisances reported abated, while during the nine months of 1911, during which the cards were in use, there were 3,904 houses inspected and 2,600 nuisances reported. In order to facilitate the work of making out notices, the inspectors use a double-ended pencil, one end red and the other blue, in marking the cards, the blue end for ordinary conditions, and the red for nuisances.

[PLATE D NOTICE FORM.]

TENEMENT AND LODGING HOUSE DIVISION.

HEALTH DEPARTMENT.

CITY HALL ANNEX.

Notice No...... *Baltimore*.....*191*

To.....

.....

Sir:

You are hereby notified that the tenement / lodging house known as No..... .....

.....of which you are reported to be the .....is being maintained in violation of the following sections of the Baltimore City Code of 1893, in that

1.....

2.....

3.....

4.....

5.....

You are hereby directed to at once remove this violation in the following manner.

1.....

2.....

3.....

4.....

5.....

Unless you comply within.....days with the terms of this notice, proceedings will be instituted against you according to law.

.....

Baltimore.....*191*

T. & L. Division:

I hereby admit that Notice No.....was served on me on the above date.

.....

.....

Police Officer.....District.

This stub is to be signed by the person to whom this Notice is addressed and by the patrolman serving the same. It must then be detached and returned to the Health Department.

Baltimore City Code, 1893, Art. 23, Section 32.

Any person or persons, owner or owners, agent or lessee, of any tenement or lodging-house violating any of the six preceding sections, shall be subject to a fine or penalty of twenty dollars, and a further fine of five dollars for every day thereafter that he, or she, or they, neglect to comply therewith.

The method used to insure the fourth aim (i. e., an adequate follow-up system) may perhaps be best described by tracing the course of a nuisance from the time the inspection card reporting it reaches the office to the final disposition of it after it is abated. When the inspector turns in his report of a nuisance on the card (Plates B and C) the first step is to make out a notice on a form (like Plate D) to the owner of the house, informing him that his house is being maintained in violation of law, pointing out in just what the violation consists, and what the Department demands to abate the nuisance and remove the violation. This notice is given a serial number, is stamped with the signature of the Commissioner, is entered on a list arranged according to the serial number of the notice, which shows the date the notice is issued, the street and number of the house concerned, and a space for entering the date when the service stub which is attached to each notice is returned; also the number of nuisances on the notice. The notice is then turned over to the Police Department for service on the owner. When the notice is made out a carbon copy of the same is made on the blank side of a yellow card, on the reverse of which (see Plate E) is a space

STREET _____ No. _____ WARD _____ NOTICE No. _____ P. DIST. _____

ITEM	ABATED	NOT ABATED	R C.	F L	WARRANT	CANCELLED	REMARKS

PLATE E.—Reinspection card; color lemon; reduced one-half.

for the street and number, the ward and the police district of the property affected, the number of the notice, and columns headed as follows: "Item," "Abated," "Not Abated," "R. C.," "F. L.," "Warrant," "Cancelled," "Remarks." When the serial number is put on the notice, it is also put on this yellow card, on the blue history card, and on the buff inspection card, and the date is put on the blue card. The blue card and the buff card are then filed away in the open file—the inspection card remains in the open file with the history card, while there is a violation open, so that it is easy to tell just what the violation consists of at any time. The yellow card containing the copy of the notice is filed away in a tickler file, arranged according to the dates of the month, behind a date a few days after the expiration of the time named on the notice within which the order must be complied with. On this date the card is taken out and given to the inspector, who again inspects the property and indorses in the column marked "Item" the numbers of the items on the notice which have been complied with, and under the column marked "Abated" he fills in the date of the inspection. Those items which are not abated are likewise entered in the appropriate columns. If the entire notice is not complied with the owner is sent a polite note asking him to call at the Department to explain why he has not complied with the notice; the date of this note is filled in in the column "R. C.," and the card is put back in the tickler file behind a date a week or so later. When this date arrives the card is again handed to the inspector for another reinspection, and the same process is gone over again, except that the note this time is a demand for reasons why legal proceedings should not be instituted looking to the enforcement of the notice, and the date is inserted in the column "F. L." When the card comes out a third time another reinspection is made, and if by this time the notice is still uncomplied with and the owner has shown no good reason why he should be excused, a warrant is sworn out at the police station of the district in

which the property is located and the owner is prosecuted under the regular criminal procedure of the State. When the nuisances are abated the date is stamped on the history card and the inspection card and reinspection card filed away in a closed file.

In addition to these records we have an alphabetical record of owners, and cards on which complaints may be investigated and made the basis of orders without a complete inspection of the premises.

Turning our attention to the statistical work which has been done: When I took charge of the division I found that while a record was made of the number of families, rooms and people in each tenement house, and of the number of beds in each lodging house, no tabulation was attempted of the figures thus obtained. The Department had some eighteen hundred houses listed, but there was no accurate record of the number of houses in the city; many of the houses on the list had been converted into private residences or turned to some use other than tenements or lodging houses. Furthermore no new houses had been reported for about two years.

One of the first things I did when I took charge of the division, therefore, was to get new lists of the tenement and lodging houses in the city from the Police Department. Beginning with the first of May, by which time the new card system was in working order, a systematic inspection of all houses on both the lists sent by the Police Department, and those on file prior thereto, was made. Statistics as shown by these inspections were recorded and tabulated by wards. This inspection took from April until October, or approximately six months. The results of the tabulation are shown in the accompanying table (1).

I realize that the statistics here given are not absolutely accurate. In the first place the lists of tenements turned in by the Police Department are not accurate. In the second place, there are many houses in the city which are today tene-

ments, and tomorrow non-tenements. Again, the line of demarkation cannot always be strictly drawn. Houses of the furnished room type, for instance, where as many as three families cook in their rooms, are tenements, but if the rooms are only used for sleeping and the gasoline stove is not resorted to, the house is not within the definition. Again, if a boarding house takes in transients, it falls under the definition of a lodging house, while if no rooms are rented for less than a week, it is not a lodging house. In addition, all hotels would come under the definition of lodging houses, but with the small number of inspectors now at our disposal, it has not been deemed expedient to make an attempt to cover them. The only way to get really accurate statistics would be to have a house to house sanitary survey of the entire city made. This I hope can be done, for then and only then will the Department be in position to properly undertake such work as is being done by this division.

It is generally supposed that the tenement houses are confined to the southeastern part of the city, and while it is true that there are more of them there than anywhere else, yet the table shows that they are scattered over the entire city, not a ward being entirely free of the evil.

It may be interesting to know the number of tenement and lodging houses by police districts; I therefore insert a table giving these figures. This latter classification was not made when the ward figures were taken, but at the close of the year. The totals do not, therefore, quite agree with those shown in the table by wards:

Central District	325
Northern District	91
Northeastern District	213
Eastern District	837
Southern District	159
Southwestern District	72
Western District	368
Northwestern District	242
	2,307

While all these statistics are of value in that they give the only just basis on which to judge the necessity for the work of the division, yet they do not represent any real good accomplished. The division has, however, succeeded in having some three thousand and more nuisances abated during the year. These nuisances range all the way from accumulations of rubbish and full privies to dark rooms and hallways. Many of them very probably would have been reported to the Department and taken in charge by the health wardens if this division had not existed, but our experience has been that in most instances the tenants are afraid to report nuisances. Furthermore, we believe that this fear is well grounded, for time and again when owners get our notices they come in to find out who reported the nuisance, frequently remarking that so and so is a bad tenant anyhow and they had better get rid of him. I am, therefore, firmly of the opinion that many of the nuisances would never have been discovered but for the periodic inspection of the Department on its own initiative. This impression is further deepened by the very small number of complaints which this division has been called on to investigate.

The following tables and statistics speak for themselves and show the details of the work accomplished. It will be noticed that these statistics do not all cover the same period of time. Under the system in vogue when I took charge, many of the figures here given were not tabulated, and consequently our records only date from the time the new system went into

effect. The figures are in each case for the entire year unless otherwise stated:

Houses inspected		5,836
Complaints investigated		70
Reinspections since May 1		2,831
Notices issued (1,372 since April 1)		2,122
Nuisances ordered abated since April 1		2,600
*Nuisances abated		3,292
Orders cancelled since April 1		240
Nuisances pending December 31		307
Warrants sworn out		14
Prosecutions disposed of as follows:		
Case dismissed when work done	6	
Case dismissed when work done on payment of costs	2	
Warrant returned non est (work done)	1	
Fine of twenty dollars and costs	2	
Warrant withdrawn on payment of costs	1	
Cases pending	2	
		14

Before closing this report I feel I should bring to your attention certain improvements which I feel should be made in the work of this division in order for it to do the work it should do.

I feel, first of all, that the jurisdiction of the division should be enlarged so as to include certain classes of houses closely akin to those now inspected, but which do not come under our jurisdiction. Houses in courts and alleys suffer from most of the ills of the tenement house, and are in most cases in dire need of periodic inspection. The boarding house, the hotel, and the furnished room house in which there is no cooking, are in most cases as much in need of inspection as the technical lodging house, and in many cases it is almost impossible to tell just what is a tenement or lodging house and what is not. I should, therefore, recommend that the law be modified to put all houses in which three or more rooms

*For details of nuisances abated, see table No. 2, showing distribution of nuisances by wards, and in just what the nuisance consisted

are rented out for sleeping purposes into the lodging house class; and that all houses which do not face on a public highway, or which have to share water supply, toilet facilities, or back yards with other houses be placed under the jurisdiction of the tenement inspectors.

The law under which this division operates at present is very old, and has in some respects been superceded by the new Building Code. Just how much of the ordinance is still under the jurisdiction of the Health Department is extremely uncertain, and cannot be definitely settled until the question is passed on by the courts, or until new legislation definitely settling it is secured, the latter alternative being decidedly preferable. This legislation should, it seems to me, place all matters of light and ventilation as well as cleanliness under the jurisdiction of the Health Department. Under Mr. Preston's administration of the Building Inspector's office the justice of this claim was recognized and all plans for new tenements were submitted to me for approval before permits were granted. I feel that a revision of the tenement house ordinance is not only highly desirable, but absolutely necessary to give this division a sound legal basis, and to accurately define its jurisdiction.

It would, in my opinion, save the city money, were the services of a clerk given to this division. Inspectors are not qualified for clerical work as a rule; besides, a clerk could be secured for $500 a year who would do as much clerical work and do it better than an inspector at $900. The time of the inspectors, both chief and assistants, is needed on the street to do the regular inspection and follow-up work. The clerical end of the work, therefore, suffers; the files cannot be kept in proper shape, letters are not promptly answered, and statistics are not accurately kept. All of this could be done, and the efficiency of the division greatly increased if it had even part of the time of a clerk.

The division works under great difficulty in the fact that it has no systematic method of learning of new houses. I would, therefore, suggest that a scheme of co-operation be worked out by which the Building Inspector's office may report all new tenement and lodging houses at the time they are ready for occupancy, and also that the Police Department include in their school census a list of all tenement houses and report the same to this division.

In conclusion I might say that I feel that a great deal has been accomplished during the year in the way of systematizing the work of the division, in educating the owners to realize that when they get a notice it must be carried out, and in teaching the tenants something as to the necessity for cleanliness. If the above recommendations, especially those in regard to the enlarging the jurisdiction of the division and the revision of the ordinance under which it works, be approved, I feel that much good can be accomplished with little, if any, added expense to the city.

Respectfully submitted,

WILLIAM H. DAVENPORT,
Chief Tenement Inspector.

Report of Superintendent of Fumigations and Burials.

FUMIGATIONS CLASSIFIED BY DISEASES.

	1910	1911
Bright's disease	2	1
Bronchitis	4	1
Cancer	31	33
Chickenpox	4	2
Cerebro-spinal meningitis	3	8
Diphtheria	646	930
Erysipelas	12	12
Gangrene	....	1
La grippe	2	4
Measles	15	34
Nephritis	....	1
Pellagra	....	1
Pneumonia	19	16
Scarlet fever	969	921
Septicemia	....	2
Smallpox	3	1
Tetanus	1	....
Tuberculosis	2,846	2,916
Typhoid fever	102	65
Tonsilitis	4	....
Unknown	23	20
Whooping cough	3	2
Totals	4,689	4,971
Total number of rooms fumigated	17,207	18,343

RESULTS OF FUMIGATION.

	1910	1911
Negative	3,737	4,346
Positive	373	324
Unreturned	506	273
No cultures	73	28
Totals	4,689	4,971

NUMBER OF ROOMS FUMIGATED.

Diseases.	1910	1911
Diphtheria	1,155	1,931
Miscellaneous	543	549
Smallpox	14	6
Scarlet fever	1,805	1,957
Tuberculosis	13,690	13,900
Totals	17,207	18,343

Statement of dead bodies turned over to the Anatomical Board by the Commissioner of Health, under Act of the General Assembly of Maryland, Chapter 163, 1882, to be used only to promote medical schools of Baltimore city, January 1 to December 31, 1911, inclusive:

	1910	1911
Adults	312	259
Between one and five years	21	10
Under one year	191	182
Still births	285	262
Totals	809	713
Males	527	452
Females	265	253
Unknown sex	17	28
Totals	809	713
Whites	277	363
Black	522	429
Unknown	10	11
Totals	809	713

The bodies were received from the following hospitals and institutions:

	1910	1911
Bay View	151	119
Central Police Station	....	1
Franklin Square Hospital	10	13
Good Samaritan Hospital	1	....
Hebrew Hospital	4	2
Homeopathic Hospital	12	9
Johns Hopkins Hospital	37	54
No. 622 West Lombard street	5	....
Maryland General Hospital	38	44
Mercy Hospital	55	34
Mount Wilson, Md.	14	11
Miscellaneous (private homes)	248	238
Morgue	87	68
Nursery and Child's Hospital	18	10
Northwestern Police Station	12	9
Northeastern Police Station	7	6
Northern Police Station	5	7
Penitentiary	....	1
Providence Hospital	2	1
Robert Garrett Hospital	....	1
St. Elizabeth's Home	43	29
St. Joseph's Hospital	8	12
Southern Police Station	4	1
Southwestern Police Station	6	2
St. Luke's Hospital	3	2
University Hospital	38	36
Western Police Station	1	2
Totals	809	713

DISPOSITION OF BODIES.

January 1, *to December* 31, 1911.

	1910	1911
Baltimore Medical College	11	41
College of Physicians and Surgeons	215	316
To the Anatomical Boards (cold storage)	558	223
Hebrew Hospital	....	1
Johns Hopkins Hospital	....	54
Maryland Medical College	....	5
University of Maryland	23	71
R. B. Norment, M. D.	1	....
J. Howard Iglehart, M. D.	1	....
H. F. Cooper, M. D.	....	1
J. C. Pound, M. D.	....	1
Totals	809	713

TOTAL NUMBER OF DEAD BODIES HANDLED BY HEALTH DEPARTMENT.

	1910	1911
Buried in Potter's Field	23	55
Surrendered to friends for burial	23	20
Transferred to Anatomy Board	786	693
Totals	832	768

THE FOLLOWING GOODS WERE DESTROYED BY THIS DEPARTMENT.

	1910	1911
Blankets	46	25
Bolsters	47	50
Bed springs	4	3
Bed quilts	....	21
Books	....	12
Carpets	14	9
Chairs	3	3
Comforts	129	85
Couches	9	13
Clothing (bundles of)	93	67
Cushions	6	5
Curtains	....	27
Feather beds	33	30
Mattresses	391	406
Pillows	280	243
Portieres	....	2
Rolls of matting	85	61
Sheets	....	2
Spreads	....	1
Suit cases	1	....
Tables	....	1
Totals	1,148	1,050

Respectfully submitted,

WILLIAM E. WOODALL, OF W.,
Superintendent Fumigation and Burial of Pauper Dead.

Report of Superintendent of City Morgue.

BALTIMORE, January 1, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

The following is the report for the year 1911 of the City Morgue:

	1910	1911
Number of bodies received	292	324
Whites	168	207
Black	124	117
Males	237	276
Females	55	148
Ages—		
From 1 to 10 years	19	26
From 11 to 20 years	18	23
From 21 to 30 years	69	59
From 31 to 40 years	69	54
From 41 to 50 years	52	82
From 51 to 60 years	53	57
From 61 to 70 years	12	15
From 71 to 80 years	....	8

CAUSES OF DEATH.

	1910	1911		1910	1911
Accident	47	28	Marasmus	2	..
Alcoholism	10	4	Meningitis	2	2
Apoplexy	2	14	Nephritis	12	2
Bright's disease	12	15	Peritonitis	6	..
Burns	2	..	Paralysis	1	..
Child birth	1	..	Pneumonia	11	5
Congestion of lungs	6	3	Rheumatism	1	..
Congestion of brain	1	..	Septicemia	1	..
Diabetes	1	..	Still birth	14	7
Drowned	43	42	Suffocation	2	2
Exhaustion	..	2	Suicide	15	23
Exposure	2	4	Syphilis	..	1
Fractured skull	1	5	Toxemia	3	2
Heart failure	27	9	Tuberculosis	20	29
Heart disease	21	70	Typhoid fever	1	..
Heat prostration	..	3	Uremia	1	3
Hemorrhage	7	6	Unknown	..	17
Homicide	16	26			

Bodies buried by friends	197	201
Bodies buried by city	94	199
Bodies now at the Morgue	3	9
Post-mortems held by Dr. N. G. Keirle	35	60

Respectfully submitted,

AUGUST H. RITTMILLER,
Superintendent of City Morgue.

Report of Inspector of Plumbing.

BALTIMORE, December 31, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I herewith submit the annual report of the work executed by the Division of Plumbing and Drainage for the fiscal year ending December 30, 1911.

Permits Issued.

1911.	Interior.	Drain.	New Sanitary Sewers.	Total.
January	197	23	.....	220
February	166	28	.....	194
March	270	37	.....	307
April	265	39	.....	304
May	288	49	.....	337
June	321	50	.....	371
July	280	35	.....	315
August	291	31	.....	322
September	294	43	.....	337
October	289	37	.....	326
November	214	32	434	680
December	180	67	974	1,221
	3,055	471	1,408	4,934

Districts.

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Total
January	271	248	168	68	79	.....	834
February	273	200	138	36	40	268	955
March	195	237	151	148	66	192	989
April	220	172	127	130	191	184	1,024
May	216	225	145	114	181	197	1,078
June	150	221	210	.....	169	133	883
July	370	335	186	161	191	185	1,428
August	170	138	131	108	150	187	884
September	392	248	238	174	239	214	1,505
October	377	171	228	145	213	91	1,225
November	284	236	225	152	253	30	1,180
December	374	275	339	223	218	255	1,684
Total	3,292	2,706	2,286	1,459	1,990	1,936	13,669

Boundaries of Plumbing Inspector's Districts.

District No. 1.

Pratt and Light streets, north and south sides east Pratt street, east side Gay street, north side Forrest street, east side Ensor street, east side Greenmount avenue, south side North avenue, east side Harford road, eastern city limits, southeastern waterfront to Light and Pratt streets.

District No. 2.

Northern city limits, Old Pimlico road, Green Spring avenue, Druid Hill Park, west side Fulton avenue, north side Baltimore street, east side Garrison lane, then westerly to Edmondson avenue and Nineteenth street to western city limits.

District No. 3.

Mount Royal avenue and North avenue, east side Mount Royal avenue, east side Cathedral street, south and east sides Howard street, north side Baltimore street, east side Charles street, north side Pratt street, west side Gay street, west side Ensor street, south side Forrest street, west side Greenmount avenue, south side North avenue to Mount Royal avenue.

District No. 4.

Druid Hill Park, west side Mount Royal avenue, west side Cathedral street, north and west sides Howard street, north side Baltimore street, east side Fulton avenue to Druid Hill Park.

District No. 5.

Pratt and Light streets, south side Pratt street, west side Charles street, south side Baltimore street, west side Garrison lane, then westerly to Edmondson avenue and Nineteenth street, western city limits, southwestern waterfront to Light and Pratt streets.

District No. 6.

Northern city limits, Old Pimlico road, Green Spring avenue, Druid Hill Park, north side North avenue, west side Harford road to northern city limits.

Sanitary and Drain Inspections.

1911.	Dist. A.		Dist. B.		Dist. C.		Dist. D.		Total.	
	Sanitary.	Drain.	Sanitary.	Drain.	Sanitary.	Drain.	Sanitary.	Drain.	Sanitary.	Drain.
January	303	19	.....	.....	222	11	.....	.....	525	30
February	157	65	157	17	163	8	76	4	553	94
March	253	80	185	34	169	23	57	55	664	192
April	149	99	158	66	195	.....	94	51	594	216
May	213	72	168	28	220	5	140	40	741	145
June	203	109	186	42	226	27	61	99	676	277
July	217	113	245	58	269	16	74	86	805	273
August	164	52	260	33	166	.....	93	73	683	158
September	200	103	288	48	197	7	129	33	814	191
October	180	130	209	31	167	17	72	91	628	269
November	187	69	227	33	285	8	127	94	826	204
December	199	128	273	27	209	6	149	80	821	241
Total	2,416	1,039	2,354	417	2,488	128	1,072	706	8,330	2,290

Boundaries of Sanitary and Drain Districts.

District A.

Northwest corner Baltimore and Charles streets, west side north Charles street to Jones Falls, west side Jones Falls to northern city limits, west to western city limits, south to Edmondson avenue, east side Gwynn's Falls to Baltimore street, north side Baltimore street to Charles street.

District B.

Southwest corner Baltimore and Charles streets, south side west Baltimore street, west side Gwynn's Falls, south side Edmondson avenue, western city limits, east side Gwynn's Falls, southwestern and southern waterfront, south side Pratt street, west side South Charles street to Baltimore street.

District C.

Northeast corner Pratt and Charles streets, east side Charles street, east side Jones Falls, northern city limits, eastern city limits, west side Harford road, south side North avenue, west side Broadway, southeast waterfront to Pratt and Light streets, north side east Pratt street to Charles street.

District D.

Northwest corner North avenue and Broadway, north side North avenue, east side Harford road, eastern city limits, southern city limits, southeastern waterfront to Broadway, east side Broadway to North avenue.

Notices to Abate Nuisances, Etc.

1911.	Notices to Abate Nuisances.	Applications Approved for City Engineer's Department.	Approval of Drainage for Inspector of Buildings Office.	No. of Properties Granted Permission to Enter City Sewers by the Board of Estimates.
January	98	24	38	109
February	62	28	64	87
March	137	35	104	258
April	141	34	92	141
May	88	24	129	343
June	42	26	87	276
July	200	26	64	116
August	72	31	81	465
September	129	33	84	205
October	106	15	91	377
November	185	22	80	196
December	92	18	79	108
Total	1,352	316	993	2,681

Number of nuisances abated, consisting of *unchoking* of private drains, twenty. Total cost, $1,621.39.

Nuisance complaints have been received from the following:

Electrical Commission	87
Water Department	291
City Engineer	58
Sewerage Commission	39
Complaint Clerk, Health Department	304
Miscellaneous	218
Total	997

At the request of the Sewerage Commission, notices, representing 3,380 properties, were served to connect to the new sanitary sewers in Districts Nos. 25, 28, 27, 34A and 35, located in northeast section of Baltimore city.

Walbrook Disposal Plant.

Following shows the number of properties connected to the Walbrook Disposal Plant:

Clifton avenue	2900 to 3200 block	60	properties
Ellamont avenue	1800 to 2100 block	9	properties
Hilton avenue	2100 block	1	property
Longwood avenue	1800 to 2100 block	34	properties
North avenue, west	2800 to 3100 block	105	properties
Poplar Grove street	1500 to 2000 block	27	properties
Presstman street	2900 block	9	properties
Rosedale street	1800 to 1900 block	18	properties
Roseland street	3000 block	20	properties
Walbrook avenue	2900 to 3200 block	81	properties
Windsor avenue	3000 to 3200 block	21	properties
Windsor Mill road	1800 block	4	properties
Total		389	properties

CLASS OF BUILDINGS.

Apartment houses	1
Churches	3
Dwellings	364
Picture parlors	1
Public schools	1
Stores and dwellings (joint)	12
Store and hall (joint)	1
Stores	5
Telephone exchange	1
Total	389

Number of plumbing fixtures installed in the above property:

Water closets, 667; wash bowls, 390; bath tubs, 398; sinks, 452; wash trays, 108, urinals, 2; miscellaneous, 3.

Respectfully submitted,

Charles I. Putts,
Inspector of Plumbing

Report of Inspector of Bakeries.

BALTIMORE, January 4, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I have the honor to hand you herewith a report of the Inspector of Bakeries for 1911.

Bakeries inspected	2,508
Bakeries inspected and ordered cleaned	77
Samples taken for analysis	15

BAKERS' SUPPLIES CONDEMNED AND DESTROYED.*

Bakers' supplies, pounds	650
Barrels flour	38

THE ART OF BAKING.

A better quality of wholesome and nutritious bread is made today and sold at a lower price, in comparison with cost of materials, than was the case a decade ago. The baker has given the consumer his portion of the returns from lessened cost of production on a larger scale and furnished him a better quality of bread. The bread today is better than it was a generation ago, because the miller makes better flour and the baker makes better bread. This gradual improvement in the quality of bread, now so well inaugurated, speaks well for the character of the bread of the future. Adulterated

*The bakeries as a rule were found to be in a very satisfactory condition, and in the instances where unwholesome conditions were found the proprietors readily complied with notices from the Department to correct them.

bread is practically unheard of in this country, and there are no food materials that hold a higher rank in purity and nutritive value than wheat flour.

The quality of the bread which a nation eats is the true index of the grade of civilization. The highest degree of civilization has been reached on wheat bread made from thoroughly cleaned wheat, milled so as to remove the husk of the wheat berry and made into bread white or creamy in color, toothsome in character, of agreeable aroma and capable of appeasing hunger; in short, satisfying the esthetic and gastronomic demands of the body.

Bread is the least variable in price of all foods. In the three-quarters of a pound of bread there are .08 pounds of protein or tissue repairing nutrients, .42 pounds of starch and nearly 1,000 calorics or heat units—the measure of energy which foods furnish the body. The five cents' worth of bread supplies one-third of the protein of the daily ration, over half of the carbo-hydrates (starch) and nearly one-third of the total energy; that is, the bread costing one-fifth supplies over one-third the total nutrients of the ration.

To briefly review the history of a loaf of bread: The wheat was probably grown upon the fertile prairies of some of the Northwestern or Southwestern States, gathering from the soil and air the choicest stores of plant food and in the plant cell, the most wonderful of all chemical laboratories, elaborating these into starch, gluten or other nutritious substances. The land was plowed, harrowed and seeded, and the crop harvested and threshed by machinery. The grain or flour was transported by rail, or possibly by boat, if in the vicinity of the Great Lakes. The wheat was milled by the modern roller process of milling into flour, being separated from the branny or cellular husk of the wheat berry and purified to remove the dust and dirt. The flour was made into bread in a modern, well-equipped, sanitary bakery, where the process of bread-making can be thoroughly controlled, and the result

is white, nutritious, toothsome bread—the most nourishing and the cheapest and best of all foods. In its production the farmer, the miller and the baker each play an important part. The bread taken as food enters into the composition of our bodies, nourishing all the organs and parts and supplying heat and mental power. Without a cereal, as wheat, from which bread can be made, man would have developed into an entirely different being and our present civilization would have been impossible.

He who aids in the production of our daily bread, be he farmer, miller or baker, is a benefactor to civilization.

Respectfully submitted,

RUDOLPH L. WEBER,
Inspector of Bakeries.

Report of Burial Permit Clerks.

BALTIMORE, January 1, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

We hereby respectfully submit the report of the work done by the burial permit clerks for the year ending December 31, 1911.

The following table exhibits a summary of the various kinds of permits issued during the year:

MONTHS.	Burial Permits, City.	Burial Permits, Transit.	Burial Permits, Still Births.	Burial Permits, Shipping.	Burial Permits, Disinter.	Removal Permits.	Total.
January	993	123	78	136	23	491	1,844
February	871	106	73	145	25	438	1,658
March	989	117	73	151	37	501	1,868
April	932	102	49	116	52	465	1,716
May	902	106	76	123	91	454	1,752
June	728	103	66	111	25	369	1,402
July	929	122	64	160	52	461	1,788
August	855	116	65	118	12	479	1,645
September	752	112	54	104	25	385	1,432
October	798	126	64	132	80	398	1,598
November	801	114	63	126	71	376	1,551
December	854	98	48	134	14	368	1,516
Total	10,404	1,345	773	1,556	507	5,185	19,770

During the year there were received from cemeteries and transportation companies 14,585 burial, disinterment and shipping permits, which have been placed in numerical order, and the same have been filed for reference.

Respectfully submitted,

HARRY C. ANDREWS,
ROBERT R. KRAUTER,
Burial Permit Clerks.

Report of Registrar's Clerk.

BALTIMORE, December 31, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I herewith respectfully submit my annual report of all transcripts issued from January 1, 1910, to date, including statement of purposes for which they were required, and other information concerning matters in my charge, that I hope will be found satisfactory.

TRANSCRIPTS.	1910	1911
Births	162	136
Deaths	1,561	1,637
Totals	1,723	1,773
AMOUNTS.		
January	$77 50	$81 00
February	66 50	62 00
March	95 00	91 00
April	65 50	88 00
May	78 50	72 50
June	69 00	65 50
July	59 50	73 60
August	81 50	74 00
September	81 50	77 00
October	56 50	77 50
November	68 50	71 50
December	75 50	68 00
Totals	$875 00	$901 60*

*Comptroller has $902.60. The difference is caused by Transcripts Nos. 5684 and 5685, issued December 27, 1910, not being paid into his office until January, 1911, by parties holding blanks back.

Purposes.	1910	1911
Burials	.....	2
Employment	42	49
Foreign	83	91
Insurance	1,225	1,246
Legal	106	132
Pensions	184	205
Records	17	14
Schools	66	24
Information	.....	10
Totals	1,723	1,773

The total receipts since June 1, 1904, to date, are $5,375.72 for 10,610 transcripts issued.

During the year all correspondence in reference to transcripts of births and deaths has been promptly attended to. The Supervisors of Elections have been furnished with a complete list of the deceased male adults of the city, and the out-of-town deaths for the year indexed.

All birth and death certificates reported as unbound, in my last report (1910), have been bound to date and are safe in the vault built upon these premises for their protection, as therein also recommended. While the records are safe, the work of this desk has been greatly increased, since persons not wishing transcripts, but simply a search for personal or other information, take my time to be with them, while going over the records; while, when the same were in this building I did not have to waste such time as at present, when really I have other duties that are delayed.

In conclusion I am compelled, considering it my duty, to repeat my warning in reference to the original record books, of both births and deaths, that are becoming annually "fainter and fainter," and before long will be very nearly undecipherable. Again, I would most respectfully suggest that the certificates of both births and deaths sent in, should be written

distinctly, in order that the names and residences of the parents may be properly recorded for future use and reference, and that the deaths should be made plain, as to names, residences and causes of death, for same reason. While the physicians and midwives names also should be intelligible, if correct copies are expected to be reproduced when they and we have passed way.

Respectfully submitted,

GEORGE C. WEDDERBURN,
Clerk to Registrar.

Report of Index Clerk.

BALTIMORE, January 1, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I beg to submit the following report of work performed by me during the year ending December 31, 1911.

Number of deaths indexed.....10,404
Number of births indexed..... 9,283

I have also written a complete typewritten list (in duplicate) of all deaths and births that occurred during the year 1910 (which is used by the printer for the printing and binding of same).

Respectfully submitted,

JAMES J. O'MEARA,
Index Clerk.

Report of Complaint Clerk.

BALTIMORE, December 31, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I respectfully submit to you my report of work done in this Department for the year ending December 31, 1910.

I have in this report given two tables, one showing the total number of personal complaints received; also complaints inspected by the health wardens and referred to the Plumbing Division.

In addition to the above work, the police sanitary reports received were 6,385; notices checked and sent out, 29,873.

Yours respectfully,

HOWARD A. MOORE,
Complaint Clerk.

Personal Complaints.

Wards.	Privy Overflowing.	Alleys Requiring Attention.	Water in Cellars.	Defective Drainages.	Inspection of Yards.	Defective Wells.	Inspection of Toilets.	Inspection of Cellars.	Choked Sewers.	Unsanitary Conditions.	Total.
First	13	3	12	4	2	....	6	....	1	28	69
Second	22	4	10	3	10	....	5	2	....	37	93
Third	25	8	48	4	16	2	12	5	1	85	206
Fourth	41	11	44	11	27	3	19	6	12	113	287
Fifth	47	5	44	8	12	8	9	7	1	68	209
Sixth	56	7	36	8	10	4	5	4	4	50	184
Seventh	54	8	26	6	9	3	2	2	6	41	157
Eighth	61	13	35	6	10	5	10	3	1	45	189
Ninth	37	4	27	5	7	1	1	3	2	51	138
Tenth	39	8	16	4	17	1	8	3	....	43	139
Eleventh	30	10	8	6	18	1	14	7	3	60	157
Twelfth	30	20	44	9	19	1	7	9	9	79	227
Thirteenth	29	15	8	6	11	....	11	4	6	40	130
Fourteenth	37	12	6	8	22	4	12	3	4	36	144
Fifteenth	40	24	27	19	11	5	12	4	4	105	251
Sixteenth	57	18	17	12	10	4	11	3	1	68	201
Seventeenth	47	8	11	3	16	1	10	....	....	30	126
Eighteenth	35	11	14	6	8	2	4	....	1	32	114
Nineteenth	27	17	17	5	6	5	8	1	3	30	119
Twentieth	21	6	8	10	4	1	5	1	3	51	110
Twenty-first	22	6	6	2	7	1	3	....	....	27	74
Twenty-second	31	13	8	1	6	3	4	4	2	31	103
Twenty-third	35	3	12	2	6	1	1	2	....	27	89
Twenty-fourth	17	8	11	1	2	1	....	1	....	11	52
Total	853	242	495	149	266	58	179	74	64	1188	3568

Referred to Plumbing Division.

Wards.	Water in Cellars.	Privy Overflowing.	Inspection of Toilets.	Inspection of Cellars.	Unsanitary Conditions.	Defective Wells.	Defective Drainage.	Choked Sewer.	Water in Manhole.	Sewerage Backing into Cellars.	Total.
First	9	....	....	....	3	2	....	....	....	....	14
Second	2	....	....	....	1	....	....	1	....	....	4
Third	20	....	....	....	3	1	....	1	....	....	25
Fourth	18	....	1	1	8	2	4	4	....	....	38
Fifth	13	....	1	....	2	1	....	1	....	....	18
Sixth	7	....	1	2	3	1	2	1	1	....	18
Seventh	12	....	....	1	1	....	....	2	....	1	17
Eighth	11	....	1	....	2	....	....	1	....	....	15
Ninth	13	....	....	....	1	....	....	....	....	....	14
Tenth	4	....	1	....	1	....	....	....	....	....	6
Eleventh	....	....	1	....	2	....	1	2	....	....	6
Twelfth	16	....	....	....	....	1	....	5	....	....	22
Thirteenth	5	3	3	1	4	....	....	5	....	....	21
Fourteenth	4	1	1	....	3	....	2	1	....	....	12
Fifteenth	4	1	....	....	4	2	4	1	....	....	16
Sixteenth	4	1	....	....	2	1	1	2	....	....	11
Seventeenth	6	....	....	....	1	....	....	....	....	....	7
Eighteenth	6	....	....	....	....	1	1	1	....	....	9
Nineteenth	4	....	1	....	1	1	....	....	....	....	7
Twentieth	3	....	....	....	1	....	....	1	....	....	5
Twenty-first	....	1	....	....	....	1	....	....	....	....	2
Twenty-second	3	....	....	1	2	1	....	2	....	....	9
Twenty-third	3	....	....	....	....	....	....	....	....	....	3
Twenty-fourth	5	....	....	....	1	....	....	....	....	....	6
Total	172	7	11	6	46	15	15	31	1	1	305

Report of Commissioners' Clerk.

BALTIMORE, January 1, 1912.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

I have the honor to submit herewith an account of the work done by me for the year ending December 31, 1911.

Number of notices sent to physicians	30,000
Number of notices sent to hospitals	19,000
Number of notices sent to undertakers	550
Number of notices sent to public schools	193,200
Number of notices sent to parochial schools	82,541
Number of notices sent to dispensaries	22,350
Number of notices sent to factories	360
Number of monthly reports sent out	21,600
Total	369,601

In addition to the above, my work has consisted of delivering, in person, all necessary supplies for the use of the medical inspectors and nurses of the public and parochial schools; also the sending out and filing of the daily and complete reports of the five medical inspectors and nurses of schools. The filing of the daily reports of the different divisions connected with this Department, filing the card reports of infectious diseases, and the daily reports of the Health Warden on same. I also keep monthly map records of diphtheria, scarlet fever and typhoid fever, showing the number and locations of same. I get up on the multigraph all minor forms to be used in this Department.

Respectfully submitted,

C. V. DENNIS,
Commissioners' Clerk.

Report of Nuisance Clerk.

BALTIMORE, December 30, 1911.

JAMES BOSLEY, M. D.,
Commissioner of Health.

DEAR SIR:

The following is the report of the work done in the Nuisance Department for the year ending December 30, 1911:

MONTH.	Permits to Clean Privies.	No. of Loads to Winan's Dump.
January	1,167	1,050
February	1,344	1,455
March	3,019	3,647
April	3,928	4,119
May	3,361	4,127
June	2,633	2,809
July	1,959	2,136
August	1,710	2,043
September	1,855	2,141
October	1,416	1,920
November	1,036	1,104
December	1,102	1,160
Total	24,530	27,711

Respectfully submitted,

EDWARD THOMPSON,
Nuisance Clerk.

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ANNUAL REPORT

OF THE

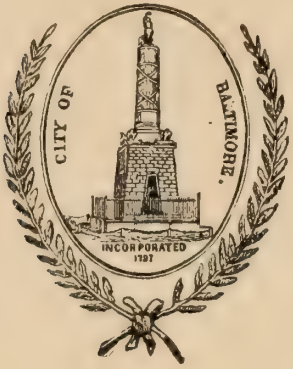
INSPECTOR OF BUILDINGS

TO THE

Mayor and City Council of Baltimore

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911



BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

DEPARTMENT OF BUILDINGS

PERSONNEL

CLARENCE E. STUBBS	Inspector of Buildings
JOSEPH R. DEGENHARDT	District Inspector
W. H. SCHULZ	District Inspector
JAMES J. BYRNE	District Inspector
BENJAMIN G. HAWKS	District Inspector
IGNATIUS BURNS	District Inspector
WILLIAM A. PARR	District Inspector
THOMAS H. ELLIOTT	District Inspector
HOWARD L. HUTCHINSON	District Inspector
P. D. COPELAND	District Inspector
HENRY HEPPERLA	District Inspector
ROBERT J. COLLINS	District Inspector
GEORGE A. HOUCK	District Inspector
JOHN L. WARTMAN	District Inspector
HORACE FORD	Supervisor of City Improvements
CHARLES J. BYRNE	Assistant Supervisor of City Improvements
CHARLES F. SCHAFER	Assistant Supervisor of City Improvements
STEWART PURCELL	Engineer—Steel and Concrete
JOHN J. PURCELL	Examiner
THOMAS C. HARRIS	Examiner
D. D. SHEESLEY	Inspector of Steel and Concrete
JAMES W. McCUEN	Furnace Inspector
JOHN J. WARD	Inspector Steam Plants
L. L. KINGSBURY	Electric Inspector
CHARLES H. GANTZ	Electric Inspector
JOSEPH N. SHEW	Electric Inspector
WILLIAM R. HAMBURY	Elevator Inspector
C. P. BROWN	Elevator Inspector
WILLIAM H. W. REED	Gasoline Inspector
WILLIAM J. CARRICK	Gas Pipe Inspector
P. J. SULLIVAN	Gas Pipe Inspector
WILLIAM J. McDONNELL	Fire Gong Inspector
A. W. COOPER	Secretaary
ELMER ALTREITH	Assistant Clerk
JAMES F. O'MAILEY	Electric Clerk
JOHN J. RODDY	Assistant Electric Clerk
JOHN J. McGRATH	File Clerk
WILLIAM G. REILLY	Bill Clerk
EDWARD W. DIX	Notice Clerk
WILLIAM F. EDWARDS	Permit Clerk
WILLIAM J. HICKEY	Permit Clerk
WILLIAM H. BOONE	Messenger
JOHN SKINNER	Elevator Clerk
A. B. THOMPSON	Gas Pipe Clerk
WALTER WILSON	Counter Clerk
E. J. ANDERSON	Typewriter
J. C. SPEDDEN	Draftsman

REPORT

DEPARTMENT OF PUBLIC SAFETY—IMPROVEMENTS,
SUB-DEPARTMENT OFFICE INSPECTOR OF BUILDINGS,
CITY HALL,
BALTIMORE, January 2, 1912.

To the Honorable
the Mayor and City Council of Baltimore City.

GENTLEMEN:—I herewith submit summary and tables of work done under the supervision of this office for the year ending December 31, 1911.

Respectfully submitted,

CLARENCE E. STUBBS,
Inspector of Buildings.

SUMMARY AND TABLES

STATEMENT OF APPROPRIATIONS AND DISBURSEMENTS ABOUT THE OLD CITY PROPERTY.

Repairs to city property, consolidated...	$206,500 00	Paid out for City Hall and Annexes.....	$9,258 57
Livery and transportation.....	1,800 00	Court House.....	7,085 72
Incidentals.....	400 00	City Jail.....	7,910 59
Emptying cesspools.....	300 00	Repairs to markets.....	11,792 36
Contingent fund.....	150 00	Repairs to engine and truck houses.....	25,214 97
Refund, Wm. A. Parr	10 00	Improvements to schools and other buildings.....	139,775 52
Refund, M. & M. Transportation Co....	2,000 00	Emptying cesspools.....	290 00
		Incidentals.....	331 30
		Livery and transportation.....	1,500 00
			$203,159 03
		Balance.....	8,000 97
	$211,160 00		$211,160 00

SALARY ACCOUNT FOR 1911.

Appropriation	$60,450 00	Inspector of Buildings	$3,177 38
		Inspector of Buildings	2,014 14
		Inspector of City Property	1,187 50
		Furnace Inspector	1,500 00
		Engineer	1,680 00
		Seventeen district inspectors, etc	20,400 00
		Three electric inspectors	4,480 00
		Boiler Inspector	1,680 00
		Two elevator inspectors	2,050 00
		Gas Inspector	1,200 00
		Two gas pipe inspectors	2,400 00
		Fire Gong Inspector	1,200 00
		Concrete Inspector	1,500 00
		Tenement and Apartment House Inspector	850 00
		Secretary	1,700 00
		Assistant Clerk	1,000 00
		Electric Clerk	1,200 00
		Eleven clerks	9,491 93
			$58,710 95
		Balance	1,829 05
	$60,540 00		$60,540 00

NEW IMPROVEMENTS AS PROVIDED FOR IN THE ORDINANCE OF ESTIMATES FOR 1911.

Improvements.	Appropriation.	Paid Out.	Balance.
Addition to No. 6 School	$131,687 54	$285 00	$131,402 54
Lot and building, No. 59 School	16,600 07	132 91	16,467 16
Lot and building, No. 51 School and Branch	142,488 84	131,688 18	10,800 66
No. 2 School	56,406 55	53,303 10	3,103 45
No. 22 School	195,870 00	51,520 09	144,349 91
No. 86 School	11,106 97	4,417 41	6,689 56
Polytechnic Institute	446,638 93	114,895 38	331,743 55
No. 70 School	134,911 47	22,655 51	112,255 96
No. 76 School	12,184 06	10,601 94	1,582 12
Lot and building, No. 27 School	105,000 00	.....	105,000 00
Addition to No. 37 School	16,043 00	43 00	16,000 00
Addition to No. 83 School	60,000 00	53 00	59,947 00
Addition to No. 99 School	40,000 00	53 00	39,947 00
Lot and building, No. 111 School and Branch and No. 101 School	120,000 00	.....	120,000 00
Addition to No. 63 School	40,000 00	7,064 49	32,935 51
Addition to No. 64 School	50,000 00	28,547 06	21,452 94
Lot and building, No. 61 School	75,000 00	.....	75,000 00
Addition to No. 67 School	50,000 00	50 00	49,950 00
Addition to No. 34 School	25,000 00	.....	25,000 00
Lot and building, No. 35 Engine House	30,000 00	7,706 65	22,293 35
No. 39 or No. 41 Engine House	29,710 00	6,907 50	22,802 50
Lot and building, No. 40 Engine House	30,000 00	.....	30,000 00
Lot and building, No. 38 Engine House	2,931 93	2,758 59	173 34
Addition to Baltimore City Jail	23,423 60	20,887 10	2,536 50
Additional room, City Hall	5,323 04	.....	5,323 04
Boilers, No. 1 Bath House	1,800 00	.....	1,800 00
	$1,852,126 00	$463,569 91	$1,388,556 09

STATEMENT SHOWING APPLICATIONS AND PERMITS AND VALUE OF IMPROVEMENTS.

In the year 1911 applications were made for the following buildings and improvements:

2,393	two-story brick dwellings	$3,542,442 00
157	two-story frame dwellings	541,772 00
95	three-story brick dwellings	262,501 00
3	office buildings	825,000 00
13	apartment houses	597,842 00
1	hotel	100,000 00
73	manufacturing and warehouses	1,851,817 00
9	churches	260,133 00
1	bank	5,000 00
7	stores	95,500 00
3	P. O. stations	28,780 00
1	theatre	100,000 00
1	garage	40,000 00
1	moving picture place	19,560 00
1	library	19,000 00
1	stable (city)	20,783 00
1	hospital	22,000 00
2	schools (city)	464,150 00
2	additions to schools (city)	101,523 00
1	vault (city)	3,395 00
		$8,901,198 00
672	additions	803,450 00
		$9,704,648 00
Add 20 per cent. for undervaluation		1,940,929 60
		$11,645,577 60

3,438	buildings and improvements	$11,645,578 00
8,190	alterations and repairs	800,000 00
2,617	minor privileges (Board of Estimates)	200,000 00
9,082	electric installations	1,500,000 00
6,087	motive power	500,000 00
171	elevators	70,000 00
2,266	gas fittings	345,000 00
1,744	heating apparatus	400,000 00
40	alarm-gong systems	4,400 00
		$15,464,577 60

AMOUNT APPROPRIATED FOR 1911.

Repairs to city property, consolidated	$206,500 00
Livery and transportation	1,800 00
Incidentals	400 00
Emptying cesspools	300 00
	$209,000 00

NEW IMPROVEMENTS.

For completion of Western High School	$28,455 00
For completion Bay View Power House and machinery	125,000 00
Completion, addition to City Jail	10,030 86
New elevators, Court House	7,244 00
Boiler, No. 1 Bath House	1,800 00
Bay View Asylum, mangles, porches, etc., Nurses' Home	5,000 00
Vault for Health Department	2,000 00
Completion of Pipe Line Station	150,000 00
Completion Engine House No. 36	1,894 42
Completion Engine House No. 38	2,931 93
Completion School No. 86	7,237 00
Completion School No. 59	14,658 00
Completion School No 2	31,205 72
Completion School No. 60	34,652 94
Completion School No. 6	86,041 27
Completion School N. 70	21,050 87
Completion School No. 51	47,963 32
	$846,705 33

APPLICATIONS AND PERMITS—COMPARATIVE STATEMENT FOR THREE YEARS.

Buildings and Improvements.	1911.		1910.		1909.	
	No.	Value.	No.	Value.	No.	Value.
Churches	9	$260,133 00	8	$125,000 00	6	$61,563 00
Banks	1	5,000 00	.....	.....	3	345,000 00
Hotel and apartment houses	14	697,842 00	5	760,500 00	9	117,300 00
Office buildings and warehouses	83	2,772,317 00	99	2,698,546 00	69	985,809 00
Dwellings and additions	3,517	5,150,165 00	4,651	4,070,593 00	2,944	4,533,720 00
Hospitals	1	22,000 00	3	188,300 00	5	811,000 00
Theatres	1	100,000 00	1	100,000 00	2	55,000 00
Schools	2	464,150 00	5	376,616 00	8	468,305 00
Halls	.....	.....	2	34,000 00	2	18,500 00
Engine houses	.....	.....	2	50,000 00	3	67,500 00
Library	1	19,000 00	1	18,000 00	.....	.....
Armory	.....	.....	.....	13,775 00	.....	.....
P. O. station	3	28,780 00	.....	.....	.....	.....
	3,632	$9,519,387 00	4,777	$8,435,330 00	3,051	$7,463,697 00

APPLICATIONS AND PERMITS—COMPARATIVE STATEMENT FOR THREE YEARS.

Privileges.	Number 1911.	Number 1910.	Number 1909.
Franchise privileges	2,617	2,510	1,942
Alterations and repairs	8,190	8,875	8,912
Electric installation	9,082	9,339	9,645
Heating apparatus	1,744	1,907	2,098
Motive power	6,087	1,487	1,548
New elevators	171	231	112
Old elevators repaired	42	71	33
Gas fitting	2,266	2,003	578
Fire alarm gong system	40	71	104
	30,239	26,494	24,972

STATEMENT SHOWING CONDEMNATIONS AND NOTICES SENT FOR THE PUBLIC SAFETY.

Condemnations and Notices.	Number 1911.	Number 1910.	Number 1909.
Churches	.....	.....	4
Business houses	.....	9	10
Stores, dwellings and stables	18	98	77
Walls, etc	265	264	251
Chimneys	58	65	81
Fences, sheds, etc	19	36	102
Improper exits	704	87	43
Repair notices	407	465	666
Violation notices	51	77	124
Elevator notices	81	334	340
Dangerous electric work	65	84	86
Alarm-gong systems	15	68	168
	1,683	1 587	1,952

INSPECTIONS AND EXAMINATIONS.

They were:

420 elevator inspections.
22,742 electric inspections.
275 alarm-gong inspections.
4,648 gas-pipe inspections.
167 certificates for elevators.
5,300 electrical certificates.
2,194 gas-pipe certificates.
24 alarm-gong certificates.

LIST OF PROPERTY UNDER THE SUPERVISION OF THIS DEPARTMENT.

City Hall	1
Court House	1
City Hall Annex	2
City Jail	1
Administration Building (School Board)	1
Baltimore City College	1
Eastern Female High School	1
Western Female High School	1
Polytechnic Institute	1
Colored High and Training School	1
School Buildings	132
Engine Houses (Fire Department)	38
Truck Houses (Fire Department)	17
Market Houses	11
Public Halls	4
Quarantine Station	1
City Morgue	1
Belair lot (shed)	1
City Yard (enclosure)	1
Potter's Field	1
City Dock	1
	219

TABLE SHOWING EXPENDITURES ON VARIOUS PROPERTIES.

Administration Building	$1,547 76
Baltimore City College	2,449 93
Western High School	1,242 15
Polytechnic Institute	1,113 72
Colored High and Training School	2,014 46
Eastern Female High School	1,904 46
Parental School	331 04
No. 1 School	1,329 67
No. 2 School	368 56
No. 3 School	684 12
No. 4 School	833 56
No. 5 School	1,508 71
No. 6 School	129 69
No. 7 School	3,031 42
No. 8 School	387 32
No. 9 School	952 75
No. 10 School	949 70
No. 11 School	1,542 34
No. 12 School	609 77
No. 13 School	866 69
No. 14 School	739 74
No. 15 School	1,074 78
No. 16 School	821 38
No. 17 School	364 29
No. 18 Shcool	385 73
No. 20 School	1,333 95
No. 21 School	881 65
No. 22 School	486 10
No. 23 School	621 73
No. 24 School	1,651 23
No. 25 School	1,053 42
No. 26 School	460 14
No. 27 School	783 72
No. 28 School	266 17
No. 29 School	530 72
No. 30 School	1,280 17
No. 31 School	1,050 76
No. 32 School	1,696 89
No. 33 School	1,620 76

No. 34	School	864 58
No. 35	School	933 07
No. 37	School	805 84
No. 38	School	214 36
No. 39	School	1,287 36
No. 40	School	1,120 42
No. 42	School	1,667 31
No. 43	School	934 82
No. 43	Branch School	190 24
No. 44	School	594 21
No. 45	School	1,058 86
No. 46	School	3,472 82
No. 47	School	748 02
No. 48	School	1,099 80
No. 49	School	1,823 83
No. 50	School	1,080 92
No. 50	Branch School	9 00
No. 51	School	798 61
No. 52	School	339 54
No. 53	School	680 94
No. 54	School	1,587 38
No. 55	School	1,253 01
No. 56	School	194 24
No. 57	School	402 02
No. 58	School	1,014 12
No. 59	School	242 54
No. 60	School	2,019 01
No. 60	Branch School	33 60
No. 61	School	2,030 28
No. 62	School	410 16
No. 63	School	2,260 95
No. 64	School	159 22
No. 64	Branch School	80 00
No. 65	School	1,488 09
No. 66	School	184 05
No. 67	School	358 02
No. 68	School	438 47
No. 70	School	231 58
No. 71	School	1,127 21
No. 72	School	1,335 85
No. 73	School	664 52
No. 74	School	1,716 11

No. 75	School	1,655 37
No. 76	School	567 07
No. 77	School	673 82
No. 78	School	984 54
No. 79	School	765 26
No. 80	School	722 70
No. 81	School	771 11
No. 82	School	600 78
No. 83	School	3,723 25
No. 84	School	747 53
No. 85	School	488 66
No. 86	School (repair)	138 82
No. 91	School	662 45
No. 92	School	1,346 70
No. 93	School and Branches	934 31
No. 94	School	1,066 85
No. 95	School	762 44
No. 96	School	677 97
No. 97	School	607 88
No. 98	School	858 31
No. 99	School	1,061 72
No. 100	School	773 83
No. 101	School	499 57
No. 105	School	431 96
No. 106	School	973 63
No. 107	School	497 71
No. 108	School	218 17
No. 109	School	484 74
No. 110	School	1,287 42
No. 111	School	379 92
No. 111	Branch School	295 16
No. 112	School	1,657 10
No. 113	School	938 60
No. 115	School	196 85
No. 115	Branch School	13 00
No. 116	School	549 29
No. 118	School	1,086 88
No. 118	Branch School	12 73
No. 1	Engine Company	224 30
No. 2	Engine Company	542 41
No. 3	Engine Company	216 12
No. 4	Engine Company	768 52

No. 5 Engine Company and No. 3 Truck Company	401 76
No. 6 Engine Company	524 13
No. 7 Engine Company	119 03
No. 8 Engine Company	584 80
No. 9 Engine Company	1,141 44
No. 10 Engine Company	628 17
No. 11 Engine Company	287 36
No. 12 Engine Company	385 20
No. 13 Engine Company	557 00
No. 14 Engine Company	389 43
No. 15 Engine Company	725 44
No. 16 Engine Company	1,552 64
No. 17 Engine Company	90 74
No. 18 Engine Company	315 74
No. 19 Engine Company	285 12
No. 20 Engine Company	759 15
No. 21 Engine Company	828 08
No. 22 Engine Company and No. 17 Truck Company	695 72
No. 23 Engine Company	1,197 48
No. 24 Engine Company	272 08
No. 25 Engine Company	1,285 17
No. 26 Engine Company	142 69
No. 27 Engine Company	601 88
No. 28 Engine Company	582 66
No. 29 Engine Company	584 82
No. 30 Engine Company	993 86
No. 31 Engine Company	662 59
No. 32 Engine Company	90 12
No. 33 Engine Company	83 14
No. 34 Engine Company	450 87
No. 36 Engine Company (repair)	36 46
No. 37 Engine Company	341 54
No. 38 Engine Company (repair)	157 44
No. 39 Engine Company	106 58
No. 2 Water Tower	223 16
No. 1 Truck Company	351 16
No. 2 Truck Company	311 28
No. 4 Truck Company	792 03
No. 5 Truck Company	359 22
No. 6 Truck Company	835 06
No. 10 Truck Company	588 94
No. 11 Truck Company	641 25

No. 12 Truck Company	307 77
No. 13 Truck Company	270 01
No. 14 Truck Company	597 76
No. 15 Truck Company	162 33
No. 16 Truck Company	203 72
Belair Market	457 21
Broadway Market	1,702 56
Centre Market	3,845 68
Cross Street Market	1,669 44
Hanover Market	349 27
Hollins Market	166 03
Lexington Market	1,810 29
Lafayette Market	7 37
Northeast Market	626 06
Richmond Market	1,158 45
Northwestern Police Station	1,186 48
Northeastern Police Station	989 74
Central Police Station	962 84
Patrol Station	128 01
Northern Police Station	1,376 94
Southwestern Police Station	1,710 59
Eastern Police Station	629 29
Western Police Station	2,429 95
Southern Police Station	623 08
Pratt Street Stable	1,411 76
Granby Street Stable	30 14
City Hall	6,946 70
City Hall Annex No. 1	1,477 07
City Hall Annex No. 2	834 80
City Jail	1,910 59
Court House	7,085 72
Quarantine	22 35
Bay View Asylum	4,662 35
City Morgue	257 87
Patapsco Storage Company	10,320 29
Vault (Health Department)	1,852 92
Bay View Asylum (porches, mangles, etc.)	1,204 69
	$201,037 73

Respectfully submitted,

CLARENCE E. STUBBS,
Inspector of Buildings.

ANNUAL REPORT

OF THE

Department of Legislative Reference

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

REPORT

BALTIMORE, January 2, 1912.

To the Honorable the Mayor and City Council of Baltimore.

GENTLEMEN:

I submit herewith the annual report of the Department of Legislative Reference for the year ending December 31, 1911.

The year 1911 has shown very gratifying evidence of the growing utility of this department. In most cases, the department has been able to comply promptly with requests for information; and in cases where the information was not on file, steps were taken to secure it at once. The nature of the functions of the department make it necessary to be continually collecting information on important subjects, with especial reference to municipal questions and questions which are likely to be considered by the city or State.

After the November election, letters were sent to the members of the Legislature, calling attention to the work of the department and offering its services. This has been the policy pursued since its establishment in 1907, and it is expected that the department will be used to a considerable extent by the members of the Legislature, particularly those from the city. We have made arrangements to receive copies of the House and Senate Journals and all the printed bills, which latter will be indexed as soon as received, so that it will be possible at a moment's notice to know what bills are before the Legislature. In this way the city officials can examine bills which affect the city. It is hoped also that duplicate copies of all bills will be received, so that those desiring to do so, can consult them here without having to go to Annapolis. This was done during the sessions of 1908 and 1910, and proved to be a great convenience.

The department has been used more frequently during the past year than ever before by members of the City Council,

city officials and the public generally. Among the more important topics on which information has been requested and collated are the following:

Alleys.
Billboards.
Boards of trade.
Buildings—Fees.
Buildings—Laws.
Charters.
Child labor laws.
Cigarettes.
City finance.
City ordinances.
City planning.
Civic reform.
Civil service—Municipal.
Coal tests.
Commission government.
Commission government—Charters.
Condemnation of land.
Depository laws.
Dog tax.
Election laws.
Election laws—Corrupt Practices.
Employers' liability.
Fireworks.
Garbage collection and disposal.
Grain inspection.
Harbors.
Home rule.
Hours of labor for women and children.
Industrial accidents.
Inebriety.
Initiative and referendum.
Justices of the peace.
Labor laws.
Lighting, municipal.
Lighting, municipal—Rates.
Lighting, municipal—Regulation.
Liquor laws.
Markets.
Milk.
Mining laws.
Motion pictures.
Municipal courts.
Municipal leagues.
Municipal ownership.
Negro segregation.
Newsboys.
Parcels post.
Parks.
Paving.
Popular election of senators.
Primary elections.
Railroads—Regulations.
Road laws.
Schools—Baths.
Schools—Buildings.
Schools—Medical inspection.
Schools—Neighborhood use.
Short ballot.
Single tax.
Socialism.
State financial reports.
Street cleaning.
Street lights.
Street railroads—Regulation.
Street railroads—Reports.
Taxation.
Tax exemptions.
Teachers' pensions.
Testing laboratories.
Veto power.
Voting machines.
Water pollution.
Water rates.
White slavery.
Woman suffrage.
Workmen's compensation.

During the past year the department made quite a number of compilations. One of these gave a history of improved paving in Baltimore, showing when the streets were paved, the kind of material used, whether paid for by the property-owners, etc. At the suggestion of several of the city officials, this compilation is published in the appendix of the report. A compilation was also made showing the liquor license fees charged by the several counties and towns of the State and the amount received by the State from these licenses. Another compilation showed the total State revenue segregated according to sources and the amount contributed by Baltimore. Some of the other compilations were in regard to Legislative expenditures, taxable basis and rates of other cities, sewer rentals, etc.

The value of the work of the department has been recognized by other cities, and since its establishment, similar departments have been created in St. Louis, Kansas City, Mo.; Milwaukee, and Minneapolis. A committee appointed by the Board of Estimates of New York city has recommended that a similar agency be established there, and similar steps are being taken in Philadelphia. Chicago and Buffalo are also considering the question, and it is quite likely that other cities will follow suit within the next year. Minneapolis and St. Louis established their departments during the past year. The National Municipal League regards the subject of sufficient importance to continue its Committee on Municipal Reference Libraries and Archives for another year. The establishment of departments in sister cities promotes mutual co-operation and facility of exchange of information, thereby increasing the efficiency of each department. The department also serves a useful purpose in giving information about Baltimore to other cities.

The following list will give some idea of the kind of material on file in the department, though the list is by no means exhaustive:

Arbitration—Industrial.
Armories.
Assessments.
Automobiles.
Agriculture.
Apportionment of representation.
Banking laws.
Banking reports.
Bastardy laws.
Baths.
Building laws.
Billboards.
Blind.
Boards and commissions.
Budgets.
Carriage regulations—Buildings.
Corrupt practices.
Corporation laws.
Commission government.
Condemnation.
Civil service.
Constitutions.
Charter revision.
Cigarettes.
Capitol buildings.
City planning.
Cocaine.
Child labor.
Convict labor.
Charters.
Charities.
Cold storage.
Cost of living.
Dangerous trades.
Depository laws.
Desertion.
Diseases—Industrial.
Divorce laws.
Dogs.
Drinking cups.
Efficiency.
Election laws.
Electric lighting rates.
Elevators.
Electric signs.
Electrocution.
Employment bureaus.
Employers' liability.
Express companies.
Franchises.
Financial reports of States.
Financial reports of cities.
Filtration.
Fire departments.
Fire gongs.
Food exposure.
Food laws.
Flies.
Forestry.
Factory inspection.
Guarantee of bank deposits.
Garbage.
Grade crossings.
Gas rates.
Grain inspection.
Game and fish laws.
Governors' messages.
Home rule.
Hospitals.
Housing problems.
Harbors.
House numbering.
Hours of labor.
Immigration.
Illiteracy.
Income tax.

Inebriates.
Inheritance tax.
Indeterminate sentence.
Industrial education.
Insurance.
Insurance of State buildings.
Insanity.
Insanity—State hospitals.
Injunctions.
Irrigation and drainage.
Initiative and referendum.
Juvenile courts.
Juvenile delinquency.
Jury commissioners.
Legislation.
Legislative expenses.
Legislative reference work.
Libraries.
Licenses—Mercantile.
Licenses—Slot machines.
Laws of States.
Lobbying.
Labor laws and reports.
Liquor problem.
Municipal courts.
Municipal ownership.
Municipal lighting—Reports.
Municipal lighting—Rates.
Mayors' messages.
Mosquitoes.
Monoplies.
Meter inspection.
Meats.
Markets.
Milk inspection.
Mining laws.
Mining accidents.
Municipalities (general).
Maryland Legislature—Clippings and bills.
Natural resources.
Negro suffrage.
Negro segregation.
Newsboys.
Oil inspection.
Oysters.
Old age pensions.
Open-air schools.
Ordinances.
Printing of bills.
Popular election of Senators.
Primary elections.
Paving—Asphalt on cobbles.
Paving—Special assessments.
Public comfort stations.
Poor.
Prisons.
Probation.
Parole.
Pollution of water.
Police uniforms.
Police departments.
Presidential preference primaries.
Pupils—Medical inspection.
Pupils—Industrial training.
Pupils—Compulsory attendance.
Plumbing.
Proportional representation.
Public service commissions.
Parks.
Pasteur treatment.
Playgrounds.
Public baths.
Parcels post.
Postal savings banks.
Public utilities.
Public health—Laws.
Public health—Reports.
Revenue laws.
Rats.
Railroads—Reports.
Railroads—Laws.
Railroads—Maps.
Railroads—Rates.

Railroads—Regulations.
Railroads—Terminal facilities.
Railroads—Electrification.
Roads.
Reciprocity.
Recall.
Referendum.
Representation.
Salaries and fees.
Savings banks.
Single tax.
Seals.
State constitutions.
Street paving.
Special legislation.
Socialism.
Switching charges.
State offices—Rental.
Street cleaning.
Street traffic.
Street names.
Strikes.
School laws.
School buildings.
School reports.
Schools—Baths.
Schools—Neighborhood use.
Sewerage.
Social evil.
Street railways.
Street railways—Fares.
Street railways—Car stops.
Street railways—Fenders.
Street railways—Franchise.
Street railways—Paving.
Stables—Regulations.
Smoke.
Subways.
Suffrage.
Tax reports.
Taxation—Equalization.
Taxation—Collection.
Taxation—Penalties.
Taxation—Personal property.
Taxation—Discounts.
Taxation of franchises.
Taxation of railroads.
Taxation of manufactures.
Taxation of corporations.
Taxation of municipal bonds.
Tariff.
Teachers' pensions.
Teachers—Tenure of office.
Teachers' salaries.
Tenements.
Testing laboratories.
Trade and commerce.
Traders' licenses.
Telephones and telegraphs.
Torrens system of land registration.
Trees.
Typhoid fever.
Tuberculosis.
Uniform accounting.
Union stations.
Vacant lot cultivation.
Vocational education.
Voting machines.
Vital statistics.
Wages.
Water power.
Water rates.
Water departments.
Water-sheds—Reforestation.
Waterways.
Weapons—Carrying and sale.
Weights and measures.
Wharfage.
Woman suffrage.
Workmen's compensation.

During the past year there were added to our collection 218 books and 1,552 pamphlets, making a total of 1,544 books and 7,069 pamphlets now on hand. In addition to the books and pamphlets, there is quite a collection of clippings and magazines, legislative bills of other States, as well as a complete file of the bills for the last two sessions of the Maryland Legislature. The department spends very little for books. Most of the pamphlets cost very little, though the value of the collection is hard to estimate, since quite a number of very valuable and rare reports have been secured at little or no cost. We now have on file the charters and ordinances of nearly all of the more important cities of the country. During the year more than 4,700 communications were sent out from this office, either asking or giving information.

The total expenditures of the department for the year 1911 amounted to $3,573.82.

I desire to take this occasion to thank the officials of the city and State for their kindness and courtesy in furnishing the department with information, reports, etc., when so requested. I would also again remind them, and the public generally, that the department is always ready and willing to serve them in every way possible.

Respectfully submitted,

HORACE E. FLACK, *Executive.*

APPENDIX

REPORT

ON

IMPROVED PAVING IN BALTIMORE

IMPROVED PAVING IN BALTIMORE

Improved paving was laid in Baltimore, for the first time, about the year 1867, or 1868. Ordinance No. 65, 1867, made it optional with the owners of a majority of the front feet on any street which was to be paved or repaved, whether the cobbles should be used for the Nicholson (wood block) or any other improved pavement. During the year 1868, the Nicholson, or wood block pavement, was used on Fayette, St. Paul and Second streets, and Post Office avenue.* This paving cost $4 per square yard and proved very unsatisfactory, having to be replaced in about six years.

The City Commissioner, in his report of 1868, stated that he regarded the "belgium" paving as more suitable for commercial thoroughfares, and recommended that a square be paved with this material in order to test its merits.

In 1869 the Commercial and Farmers Bank repaved the streets fronting its property, Howard and German streets, with a wood block pavement, known as "Stowe's patent." This was quite similar to the Nicholson pavement. The City Commissioner, in his report for that year, says that wood pavement, on account of the danger to horses in sleety weather, should not be laid on streets with a grade exceeding two inches in ten feet.

In his report for 1870, the City Commissioner referred with approval to Ordinance No. 74, 1870, making it possible to pave streets without the consent of a majority of the holders of property binding on the street. "This is a very important ordinance, and will in the future have the desired effect to compel the paving of streets which could not be reached under the provisions of the old ordinance on the subject."†

*See Table No. 1.
†Report 1870, p. 6.

A new improved pavement was laid on South street, between Baltimore and Lombard streets, in 1871. This paving was done by the Grahamite Asphalt Company, under Ordinance No. 113, 1871. This pavement, like that of the wood block, cost $4 per square yard. During this year, Court House lane, between Calvert and St. Paul streets, was paved with wood block. The asphalt pavement did not prove very satisfactory, the Commissioner calling attention to the deterioration of the asphalt, particularly in the gutters, in his report for 1872. He stated that this was due to some chemical action of the water on it. The asphalt was relaid in the spring of 1872 with better results. The Commissioner renewed his recommendation as to belgian or granite block pavement, saying that it had proved the most economical and durable of all the pavements laid in New York. He estimated that it could be laid for $3 per square yard, or 30 per cent. less than the asphalt or wood block pavement.

In the report for 1873, attention is called to a concrete pavement, known as "Neufchatel" pavement, which was laid by the Baltimore and Ohio Railroad Company on Camden street, from Eutaw to Howard. Under Resolution No. 313, 1873, giving permission for this work, the railroad company was required to keep the pavement in thorough repair at all times. The Commissioner raised the same objection to this pavement as to the asphalt and wood block—that of its being dangerous to horses in sleety weather. He referred again to the deterioration of the asphalt on South street, and renewed his request for a trial of the belgian block pavement.

By Chapter 218, Laws of Maryland, 1874, the Mayor and City Council were vested with the power to provide by ordinance for the paving of any public street, lane, or alley in the city, and to assess the cost of such work, in whole or in part, pro rata, upon the property binding upon such street, lane, or alley. The same act also conferred power upon the city to provide by general ordinance for the paving of any street, lane, or alley, without the passage of a special ordinance in the par-

ticular case, whenever the owners of a majority of the front feet binding on the street applied for the same, the paving to be done upon the terms and conditions prescribed in said general ordinance. The cost of the paving could be assessed, in whole or in part, against the abutting property-owners.*

Under the authority of this law, a general ordinance was passed (No. 44, 1874) and approved by Mayor Vansant, June 4, 1874. This ordinance provided that the City Commissioner, with the approbation of the Mayor, should have authority to pave any street, lane or alley, whenever the owners of a majority of the front feet binding thereon applied for the same. The Commissioner was required to give ten days' notice by advertisement of the application, as well as notice of the time and place where he would act on it. In case of paving, the entire cost was to be assessed against the property-owners, the assessment to be due sixty days after the completion of the work and its acceptance by the Commissioner—interest to be charged at the rate of 6 per cent. if not paid when due. The city paid for intersections. The same procedure was provided in case of repaving, except that the city paid one-third of the cost and the intersections.

The city could, however, without waiting for the application or assent of the owners, provide by special ordinance for paving any street. The Commissioner called particular attention to this, stating that a number of ordinances had been passed for paving streets which had long been in need of paving, but which the city had been unable to have done under the old ordinance, which required the application of the property-owners owning a majority of front feet.

During the year 1874, belgian, or granite block pavement was laid, for the first time in Baltimore, on Light street, between Lee and Pratt streets.

In 1875 belgian blocks were laid on Liberty street, Lexington street to Lombard street, and on Howard, Lombard to

*Baltimore City Code, 1879, p. 987.

Camden streets. A new patent "Vulcanite" pavement (asphalt) was laid around the City Hall. The Commissioner spoke approvingly of the granite pavement on Light street in his report for 1875, saying that it had worn well, although it had been laid on made soil. He stated that the condition of the wood block pavement was such as to require repaving, and he recommended that this pavement be replaced by belgian blocks, since the wood blocks would only last about six years. He also stated that the asphalt pavement on South street would have to be replaced, and he preferred that belgian blocks be used.

In his report for 1876, the Commissioner called attention to the economy and advantage of the belgian block pavement, as demonstrated by experience. He also referred to the "Vulcanite," or asphalt pavement around the City Hall, saying that it was better than that on South street, but showed signs of deterioration in the gutters.

The Commissioner stated in his report for 1878 that sand was tamped into the joints of the belgian blocks laid on Fayette and St. Paul streets, in order to form a more perfect bond. The repaving of St. Paul and Fayette streets removed the last of the wood block pavements in the city, with the exception of that on Court House lane. The property-owners had, therefore, been required to pay for two improved pavements within a period of less than ten years.

In his report for 1879, the Commissioner recommended that belgian blocks be laid in the center of the street for about one-third the width of the street, and that the side of the streets be repaved with the best cobbles taken from the center. He thought this would serve equally as well on a number of streets, and would cost only about one-third the amount necessary to pave the entire street with granite pavement. No improved pavement was laid during the year.

Very little improved pavement was laid in 1880, West Falls avenue, Pratt street to Lombard street, being the only street

paved. The decision of the Court of Appeals in the case of Scharf vs. Baltimore (54 Maryland, 499) prevented the Commissioner from doing any more paving under special ordinances. This decision was the result of an injunction brought by Scharf to restrain the city from collecting special assessments for repaving Baltimore street, from Harrison street to Greene street, with belgian blocks. The street was paved in 1877, under Ordinance No. 98, 1876. The decision was rendered July 2, 1880, holding that the ordinance was invalid in failing to make provision for notice to the owners of the intention of the city to pave the street and to give them an opportunity of being heard. It was also declared invalid in delegating to the City Commissioner the discretion to assess the cost of work pro rata upon the property binding on the street, this discretion belonging wholly to the Mayor and City Council. The decision, however, upheld the authority of the city to provide for paving streets by special assessments, but that the method pursued in the paving of Baltimore street was not the proper one. A motion was made by the city for a rehearing of the case, and this was granted. In the meantime, however, another case similar to the Scharf case had reached the court. This was the case of the Johns Hopkins Hospital vs. Baltimore (56 Maryland, 1). Ordinance No. 68, 1878, provided for paving Pratt street, Jones' Falls to Howard street, the paving being done the same year. A pro forma decree was rendered by the Circuit Court in favor of the Hospital, and from this decree the city appealed. Much importance was attached to the question, and the case was twice argued. The appeal for a new hearing in the Scharf case was also considered by the Court of Appeals at the same time. The Court rendered its decision March 17, 1881, and reversed the decree of the lower court. On the same day the court reversed its own decision on the case of Scharf, thereby sustaining the validity of the ordinances and making it possible for the city to pave streets by special assessments. This was a very important victory for the city,

and after this time a great deal of paving was done under this plan; that is, the city paying one-third of the cost and the abutters the other two-thirds.

The year 1880 witnessed another very important event in the history of improved paving in Baltimore. This was the adoption of the policy to provide by loans for improved pavements. Chapter 116, Laws of 1880, authorized a $500,000 paving loan, which became effective on the ratification by the people of Ordinance No. 140, 1880.

Immediately on the ratification of the loan, ordinances were passed for paving a number of streets, but the same method which had been pursued since the introduction of improved pavements was continued, the city paying one-third and the abutters two-thirds. For the streets paved under the loan, see Table No. 2. Asphalt blocks were used for the first time this year (1881). Charles street, Madison street to Chase street, was paved with this material on application of the property-owners. South street, Baltimore street to German street, and a part of Calvert street north of Baltimore street, were also paved with asphalt blocks by the property-owners.

In 1882, the Commissioner, in view of the fact that considerable paving would be done out of the loan, wrote to a number of engineers of the city, asking their advice as to the best pavement. Opinions were obtained from Mr. Hutton, the Harbor Engineer; Mr. Martin, the Water Engineer, and Messrs. C. H. Latrobe and F. H. Hambleton. Among other recommendations they seemed unanimous in calling attention to the need of a better base for pavements.

For paving done, 1881 to 1888, see Table No. 2. See also Table No. 1 for a few streets paved in 1881.

Ordinance No. 98, 1888, for a composite loan of $5,000,000, known as the Internal Improvement Loan, was ratified by the people in 1888. It was provided that $1,000,000 was to be spent in paving streets. A number of ordinances were passed in 1889 for the paving of streets out of the loan, the city to

pay one-third and the abutters two-thirds, just as was done in the case of the $500,000 loan of 1880. Twenty-six ordinances were passed in the early part of 1890 for the paving of streets and the work was progressing when the policy of the city was entirely changed. This was done by the decision of the Court of Appeals in the case of Ulman vs. Baltimore (72 Maryland, 587). The decision was rendered July 1, 1890, and was to the effect that Ordinance No. 100, 1886, providing for the paving by special assessments of North avenue, from Pennsylvania avenue to the western city limits, was null and void, as it amounted to the taking of property without due process of law, in violation of the Constitution of the United States and the State of Maryland. The same questions had been raised in the Scharf and Johns Hopkins Hospital cases (54 Maryland, 499; and 56 Maryland, 1), with the exception that in this case the question was raised that the ordinance was void under the Fifth and Fourteenth Amendments to the Constitution of the United States.

It was not necessary, however, to raise the federal question, since the court held that the ordinance was void under the Constitution of the State. The court, therefore, reversed the doctrine laid down in the Hospital case (56 Maryland, 1), which doctrine had been sustained in Moale vs. Baltimore (61 Maryland, 224) and Alberger vs. Baltimore (64 Maryland, 1). Justices Bryan and Robinson dissented, holding that the ordinance was valid.

The decision did not hold that the city could not pave streets by special assessments, but that the method pursued in the case before the court was not the proper one. In other words, that constructive notice was not sufficient, but that actual notice must be given to the property-owners of the intention of the city to pave the street, with an opportunity to be heard. Since the ordinance made no provision for notice to and hearing of any owner whose property bounded the street to be paved, it was held to be invalid.

Instead of repealing the ordinances which had been passed, and reintroducing them with provisions for notice so as to overcome the legal objections, the city abandoned its previous policy and began paying the entire cost of improved pavements. For the paving done with $1,000,000 set aside from the $5,000,000 loan, see Table No. 3.

Ordinance No. 100, 1892, providing for another composite loan of $6,000,000, of which $1,600,000 was for paving, was ratified by the people, and the same policy was continued with the expenditure of this loan, the city paying the entire cost of the paving. Had the policy pursued in the case of the $500,000 loan of 1880 been continued with these two loans, a great many more streets would have been paved. Instead of $2,600,000 spent for improved pavements, there would have been $5,200,000, or just twice as much as was done, for the intersections and one-third paid by the city came to about one-half the cost of paving. For the streets paved with the $1,600,000, see Table No. 4.

The question of paving with sheet asphalt on cobbles was considered a number of years ago. Ordinance No. 171, 1893, to pave Davis street, from Lexington street to Franklin street, provided that sheet asphalt be placed on the cobbles. The City Commissioner, in his report for 1893, stated that it would cost as much for this sort of paving as it would to have a concrete base. He, therefore, recommended the repeal and re-enactment of the ordinance so that concrete might be used. The ordinance was repealed by Ordinance No. 93, 1895.

For the streets paved with improved pavements, 1896 to 1909, see Table No. 5.

For paving done by private contract, see Table No. 6.

For special assessments collected by City Collector, see Table No. 7.

TABLES

TABLE No. 1—*Improved Paving by Assessment.*

Street.	Ordinance.	Material.	Paved.	Cost, Sq. Yd.	Proportion Paid by Abutters.
Second, Gay to South	Resolution No. 239, 1867.	*Wood blocks.	1868.	$4 00	All.
Fayette, Charles to Calvert	Application of abutters.	*Wood blocks.	1868.	4 00	Two-thirds.
St. Paul, Lexington to Baltimore	Application of abutters.	*Wood blocks.	1868.	4 00	Two-thirds.
Second, Postoffice Ave. to South	Application of abutters.	*Wood blocks.	1868.	4 00	Two-thirds.
Postoffice Ave., Baltimore to Second	Application of abutters.	*Wood blocks.	1868.	4 00	Two-thirds.
Howard and German, one-half of street in front of bank	Resolution No. 1, 1869.	†Wood blocks.	1869.	.....	All.
South, Lombard to Baltimore	No. 113, 1871.	Asphalt blocks.	1871.	4 00	Two-thirds.
Court House lane, Calvert to St. Paul	.....	Wood blocks.	1871.	4 00	Two-thirds.
Camden, Howard to Eutaw	Resolution No. 313, 1873.	Concrete blocks.	1873.	.....	All.
Light, Lee to Pratt	No. 79, 1874.	Belgian blocks.	1874.	2 48	Two-thirds.
Liberty, Lexington to Lombard	No. 117, 1874.	Belgian blocks.	1875.	2 49	Two-thirds.
Howard, Camden to Lombard	No. 119, 1874.	Belgian blocks.	1875.	2 49	Two-thirds.
Postoffice Ave., Second to Baltimore	No. 97, 1876.	Belgian blocks.	1876.	2 37	Two-thirds.
Randall, Johnson to Covington	No. 5, 1876.	Belgian blocks.	1876.	2 69	Two-thirds.
Second, Gay to South	No. 59, 1876.	Belgian blocks.	1876.	‡3 50	Two-thirds.
North, Fayette to Baltimore	No. 58, 1876.	Belgian blocks.	1876.	2 40	Two-thirds.
South, Baltimore to Pratt	No. 57, 1876.	Belgian blocks.	1876.	2 40	Two-thirds.
Howard and German, front of bank	.....	Belgian blocks.	1876.	{ Private Contract. }	All.
Baltimore, Greene to Harrison	No. 98, 1876.	Belgian blocks.	1877.	2 49½	Two-thirds.
Lombard, South to Hanover	No. 34, 1877.	Belgian blocks.	1877.	‡3 15	Two-thirds.
West Falls Ave., Pratt to harbor	No. 50, 1877.	Belgian blocks.	1877.	1 95	Two-thirds.
Fayette, Eutaw to Howard	Application of abutters.	Belgian blocks.	1877.	2 18½	Two-thirds.

Pratt, Jones Falls to Howard.....	No. 68, 1878.	Belgian blocks.	1878.	‡2 85	Two-thirds.
Fayette, Holliday to Gay.....	No. 89, 1878.	Belgian blocks.	1878.	1 74	Two-thirds.
Fayette, Calvert to Charles.....	No. 98, 1878.	Belgian blocks.	1878.	1 74	Two-thirds.
St. Paul, Baltimore to Lexington...	No. 98, 1878.	Belgian blocks.	1878.	1 74	Two-thirds.
West Falls Ave., Pratt to Lombard..	No. 33, 1880.	Belgian blocks.	1880.	.....	Two-thirds.
Light, Baltimore to Pratt.....	No. 37, 1880.	Belgian blocks.	1881.	.....	Two-thirds.
Charles, Madison to Chase.....	Application of abutters.	Asphalt blocks.	1881.	.....	Two-thirds.
South, Baltimore to German.....	Application of abutters.	Asphalt blocks.	1881.	.....	All.
Cathedral, Centre to Mt. Vernon (§).	No. 105, 1889.	Belgian blocks.	1889.	.....	Two-thirds.

*Known as Nicholson's pavement. †Known as Stowe's patent. ‡Camp process.

§Seems to be the only street paved out of $5 000,000 loan of 1888 on which assessments were collected.

TABLE No. 2—*Paving Done Out of* $500,000 *Paving Loan of* 1880, *Due in* 1920.

Street.	Ordinance.	Material.	Share Paid by City.	Cost.		Cost per Front Foot to Abutters.
				City.	Abutters.	
Sharp, Pratt to Baltimore	No. 79, 1881.	Belgian blocks.	One-third.	$6,406	$6,814	$3 72
Calvert, Pratt to Madison	No. 59, 1881.	Belgian blocks.	One-third.	24,550	30,365	4 18
Gay, Pratt to Aisquith	No. 55, 1881.	Belgian blocks.	One-third.	24,384	30,562	3 49
Howard, Lombard to Centre	No. 41, 1882.	Belgian blocks.	One-third.	24,515	24,188	4 64
Charles, Chase to North	No. 89, 1882.	Belgian blocks.	One-third.	16,391	21,085	3 74
Intersection of Maryland and North Aves	No. 76, 1882.	Belgian blocks.	All.	1,710		
Eutaw Place, Laurens to North Ave.	No. 52, 1882.	Asphalt blocks.	One-half.	19,134	8,525	4 04
Eutaw, Laurens to Dolphin	No. 52, 1882.	Asphalt blocks	One-half.	26,873	15,692	3 94
Calhoun, Harlem Ave. to Edmondson Ave	No. 79, 1882.	Asphalt blocks.	One-half.	4,561	1,340	2 97
Block, West Falls Ave. to drawbridge	No. 7, 1883.	Belgian blocks.	All.	6,306		
Baltimore, Greene to Gilmor and Harrison to Jones' Falls	Nos. 6 & 60, 1883.	Belgian blocks.	One-third.	35,416	38,490	3 53
Baltimore, Jones' Falls to Broadway	No. 16, 1883.	Belgian blocks.	One-third.	23,891	22,638	3 68
Eutaw, Camden to Madison	No. 43, 1883.	Belgian blocks.	One-third.	35,394	36,000	4 32
Broadway Market, Canton Ave. to Thames	No. 57, 1883.	Belgian blocks.	All.	23,505		
Camden, Light to Charles	No. 52, 1883.	Belgian blocks.	One-third.	2,211	2,856	3 70
Lexington Market	No. 55, 1883.	Belgian blocks.	All.	30,092		
Charles, Conway to Mt. Vernon	No. 67, 1883.	Belgian blocks.	One-third.	25,618	24,247	2 87
Madison Ave., Eutaw to North Ave.	No. 49, 1883.	Belgian blocks.	One-third.	33,721	38,363	3 53

Lexington, Charles to Eutaw	No. 47, 1883.	Belgian blocks.	One-third.	6,578	8,138	2 92
Marsh Market Space	No. 46, 1883.	Sheet Asphalt.	All.	25,743		
Hanover, Baltimore to Camden	No. 151, 1884.	Belgian blocks.	One-third.	7,761	7,018	2 90
Charles, Conway to Barre	No. 152, 1884.	Belgian blocks.	One-third.	1,175	1,971	2 31
Washington Place, Mt. Vernon to Madison	No. 41, 1884.	Asphalt blocks.	One-half.	9,168	1,721	1 91
Court House lane, Calvert to St. Paul	No. 51, 1884.	Asphalt blocks.	One-half.	529	529	1 62
Mt. Vernon Place, Washington Place to Cathedral	No. 92, 1884.	Asphalt blocks.	One-half.	2,614	2,378	2 27
Forrest (Belair Market)	No. 54, 1884.	Sheet Asphalt.	All.	23,108		
Madison, Washington Place to Eutaw	No. 139, 1884.	Asphalt blocks.	One-third.	11,196	10,735	3 76
Parts of Cathedral and Monument	No. 140, 1884.	Asphalt blocks.	One-third.	4,069	3,247	3 90
Cathedral, Madison to Mt. Vernon	Applic'n of owners.	Asphalt blocks.	One-third.	1,334	1 883	3 85
German, South to Charles	No. 36, 1885.	Belgian blocks.	One-third.	3,020	5,011	2 62
German, Charles to Sharp	No. 36, 1885.	Belgian blocks.	One-third.	1,490	2,387	1 78
German, Sharp to Eutaw	No. 36, 1885.	Belgian blocks.	One-third.	2,382	3,472	2 92
Franklin, Charles to Howard	No. 38, 1885.	Belgian blocks.	One-third.	6,028	6,726	
Hollins Market	No. 11, 1885.	Sheet Asphalt.	All.	12,158		
Cross Street Market	No. 8, 1885.	Sheet Asphalt.	All.	10,217		
Charles, Madison to Chase	Applic'n of owners.	Asphalt blocks.	One-third.	6,564	9,147	3 73
Liberty, Saratoga to Lexington	No. 63, 1885.	Belgian blocks.	One-third.	2,307	2,891	3 19
Saratoga, Charles to Cathedral	No. 62, 1885.	Belgian blocks.	One-third.	1,865	1,859	2 43
Fish Market Space	No. 29, 1886.	Asphalt blocks.	All.	4,836		
Northeastern Market	No. 56, 1886.	Asphalt blocks.	All.	10,080		
Centre Market	No. 61, 1887.	Granolithic	All.	6,110		
Fulton Ave., Baltimore to Edmondson Ave	No. 64, 1887.	Asphalt blocks.	One-third.	9,470	18,717	4 40
Fulton Ave., Edmondson Ave. to Presstman	No. 58, 1887.	Asphalt blocks.*	None.†	12,422	47,912	7 61

*Intersections and between car tracks with belgian blocks. †Paid for intersections only.

TABLE No. 3—*Paving Done Out of* $5,000,000 *Internal Improvement Loan of* 1888, *Due in* 1928.*

Street.	Ordinance.	Material.	Paved.	Cost.
Cathedral, Centre to Saratoga, and Madison to Mt. Royal Ave.	Nos. 113 and 157, 1889.	Belgian blocks.	1889-1890.	$65,491 50
Monument, Park Ave. to Howard	No. 137, 1889.	Belgian blocks.	1890.	4,464 58
Dolphin, Eutaw to Madison	No. 101, 1890.	Belgian blocks.	1890.	5,656 23
Streets around Hanover Market	No. 127, 1890.	Sheet asphalt.	1891.	11,837 30
Streets around Lafayette Market	No. 116, 1890.	Sheet asphalt.	1891.	15,500 00
Streets around Southern Police Station	No. 73, 1891.	Sheet asphalt.	1891.	2,613 47
Streets around Richmond Market	No. 74, 1891.	Sheet asphalt.	1891	8,766 88
Hollins, Poppleton to market	No. 72, 1891.	Sheet asphalt.	1891.	12,514 47
Camden, Sharp to Howard	No. 71, 1891.	Asphalt.	1891.	4,676 88
Sharp, Pratt to Camden	No. 134, 1891.	Asphalt.	1891.	4,062 06
Mulberry, Charles to Howard	No. 21, 1892.	Sheet asphalt.	1892.	14,375 48
Broadway, Canton Ave. to Preston	No. 8, 1892.	Sheet asphalt.	1892.	204,582 43
Lafayette Ave., Eutaw Place to Fulton Ave	No. 16, 1892.	Asphalt blocks.	1892.	90,606 38
Lexington, Pearl to Fulton Ave	No. 17, 1892.	Asphalt blocks.	1892.	95,223 33
Eutaw, Madison Ave. to Dolphin	No. 10, 1892.	Asphalt blocks.	1893.	33,035 42
Pennsylvania Ave., Franklin to North Ave	No. 13, 1892.	Granite blocks.	1892.	127,904 81
Columbia Ave., Paca to Bush	No. 12, 1892.	Granite blocks.	1892.	99,436 04
Calvert, Mt. Royal Ave. to Madison	Nos. 28 and 31, 1892	†Sheet asphalt and granite blocks.	1892.	36,087 88
Fayette and Lexington, North to Calvert	No. 34, 1892.	Sheet asphalt.	1892.	7,718 24
Chase, St. Paul to Cathedral	No. 55, 1892.	Vitrified brick.	1892.	11,635 02
Arlington Ave, Lafayette Ave. to Lanvale; Lanvale, Arlington Ave. to Carrollton Ave.; Carrollton Ave., Lanvale to Lafayette Ave	No. 60, 1892.	Asphalt blocks.	1892.	19,060 06
South, Baltimore to German	No. 20, 1892.	Granite blocks.	1892.	2,500 07

Hanover, Camden to Fort Ave.	No. 22, 1892.	Granite blocks.	1892-1893.	74,180 22
Baltimore, Exeter to Jones' Falls	No. 64, 1892.	Granite blocks.	1892.	6,588 95
Lexington, Holliday to Aisquith	No. 76, 1892.	Granite blocks and sheet asphalt.	1892.	37,433 94
Total cost				$997,582 38

*Abutters paid nothing.

†Mt. Royal avenue to Read paved with sheet asphalt; Madison to Read paved with granite blocks.

TABLE No. 4—*Paving Done Out of* $6,000,000 *Public Improvement Loan, Due in* 1940.*

Street.	Ordinance.	Material.	Paved.	Cost.
Frederick Ave., Gilmor to Bentalou	No. 11, 1893.	Granite blocks.	1893.	$76,489 25
Gay, Aisquith to North Ave	No. 15, 1893.	Granite blocks.	1894.	95,061 12
Light, Pratt to Fort Ave	No. 17, 1893.	Granite blocks.	1894.	91,843 23
Franklin, St. Paul to Charles (†)	No. 18, 1893.	Granite blocks.	1894.	4,274 94
St. Paul, Monument to North Ave	No. 21, 1893.	Asphalt blocks.	1893.	120,495 98
Holliday, Lexington to Pleasant; Pleasant, Holliday to Jones Falls; Hillen, Jones Falls to Ensor; Forrest, Hillen to Greenmount Ave.; Greenmount Ave., Forrest to North Ave	No. 24, 1893.	Granite blocks.	1894.	139,238 57
Eager, bridge to Cathedral	No. 27, 1893.	Granite blocks.	1893.	25,025 36
Aliceanna, Caroline to Boston	No. 28, 1893.	Granite blocks.	1896.	36,942 04
Front, Gay to Baltimore	No. 29, 1893.	Sheet asphalt.	1893.	22,689 01
Poppleton, Lexington to Columbia Ave	No. 30, 1893.	Granite blocks.	1894.	51,910 09
Baltimore, Broadway to Chesapeake	No. 31, 1893.	Sheet asphalt.	1893.	87,434 20
Chase, St. Paul to Broadway	No. 35, 1893.	Sheet asphalt.	1893.	110,946 70
Charles, North Ave. to Twenty-first	No. 38, 1893.	Granite blocks.	1893.	151 05
Boston, Chester to eastern city limits	No. 39, 1893.	Granite blocks.	1894.	96,624 72
Saratoga, Cathedral to Fremont	No. 42, 1893.	Asphalt blocks.	1893.	57,948 40
Fort Ave., Hanover to Martin	No. 45, 1893.	Granite blocks.	1894.	72,122 19
Lafayette Ave., Mt. Royal Ave. to Eutaw Place	No. 55, 1893.	Asphalt blocks.	1893.	33,399 08
Read, Calvert to Cathedral	No. 77, 1893.	Granite blocks.	1893.	21,797 15
Calvert, Biddle to Preston	No. 102, 1893.	Sheet asphalt.	1893.	5,402 42
Concord, Pratt to Union Dock	No. 167, 1893.	Granite blocks.	1893.	42,298 43
Davis, Lexington to Franklin (‡)	No. 171, 1893.	Sheet asphalt.	1893.	285 50
Hanover, Camden to Fort Ave.; Lexington, Holliday to Aisquith; Richmond Market, Howard Street intersections	No. 209, 1893.	Granite blocks and sheet asphalt.	1893.	42,428 78

Eutaw, Intersection of Biddle	No. 215, 1893.	Asphalt blocks.	1893.	1,200	00
Fayette, Calvert to Liberty	No. 217, 1893.	Granite blocks.	1894.	40,781	53
Broadway, Preston to North Ave	No. 78, 1893.	Sheet asphalt.	1896.	35,725	60
Pleasant, Calvert to Holliday (‡)	No. 172, 1893.	Sheet asphalt.	1894.	2	56
Pratt, Howard to Frederick	No. 123, 1893.	Granite blocks.	1894.	158,486	38
McCulloh, Biddle to North Ave. (¶)	No. 103, 1893.	Asphalt blocks.	1894.	27,150	72
Maryland Ave., North Ave. to Twenty-fifth	No. 37, 1893.	Granite blocks.	1894.	36,609	15
North Ave., where unpaved to Liberty Road	No. 41, 1893.	Macadam.	1893.	6,433	05
Madison, Charles to Eutaw	No. 144, 1894.	Mosaic blocks.	1894.	12,419	04
Park Ave., Lexington to Saratoga (§)	No. 35, 1894.	Mosaic blocks.	1894.	3,831	66
Biddle, St. Paul to Hargrove Alley	No. 143, 1894.	Vitrified bricks.	1894.	1,943	72
Pearl, Baltimore to Saratoga	No. 184, 1893.	Asphalt blocks.	1896.	9,146	60
Patterson Ave., Fremont Ave. to Fulton Ave	Resolution No. 33, 1896.	Asphalt blocks.	1897.	31,815	78
Total cost				$1,600,000	00

*Abutters paid nothing.

†Ordinance called for paving Franklin street, from Howard street to Pennsylvania avenue, but this was evidently not done at this time.

‡Not paved.

¶Only paved to Lafayette avenue.

§Ordinance calls for paving from Howard street to Fayette street.

TABLE No. 5—*Paving in Baltimore*, 1896-1910.

Street.	Ordinance.	Material.	Paved.	Source of Payment.
York, Light to Johnson	No. 12, 1896.	Belgian blocks.	1896.	Tax levy.
Mt. Royal Ave., Dolphin to North Ave.	No. 62, 1896.	Belgian and asphalt blocks.	1896.	Tax levy.
McCulloh, Biddle to Eutaw	No. 60, 1896.	Asphalt blocks.	1896.	Tax levy.
Park Ave., Reservoir to Newington Ave.	No. 56, 1897.	Vitrified brick.	1898.	Tax levy.
Mt. Royal Ave., Guilford Ave. to Dolphin	No. 74, 1898.	Asphalt and belgian blocks.	1898.	Tax levy.
Fulton Ave., Presstman to Pennsylvania Ave.	No. 76, 1898.	Sheet asphalt.	1898.	Two-thirds by abutters.
Grant, Baltimore to German	No. 71, 1898.	Asphalt blocks.	1898.	One-half by abutters.
Gay, Jones Falls to Exeter	No. 121, 1898.	Belgian blocks.	1899.	Tax levy.
Eager, Chester to Collington Ave	No. 173, 1899.	Belgian blocks.	1900.	All by abutters.
Clifton Ave., Eighth to Ninth	No. 19, 1900.	Macadam.	1901.	All by abutters.
Thirteenth, North Ave. to Clifton Ave	No. 20, 1900.	Macadam.	1901.	All by abutters.
St. Paul, Twenty-fifth to Thirtieth	No. 50, 1900.	Sheet asphalt and vitrified brick.	1901.	All by abutters.
Bank Lane, Calvert to St. Paul	No. 15, 1899.	Asphalt blocks.	1901.	All by abutters.
Bank Lane, St. Paul to Charles	No. 71, 1900.	Asphalt blocks.	1901.	All by abutters.
Eutaw Place, North Ave. to Whitelock	No. 70, 1900.	Asphalt blocks.	1902.	All by abutters ($6.29 per front foot).
Maryland Ave., Twenty-fifth to Twenty-ninth.	No. 73, 1901.	Belgian blocks.	1901.	All by abutters.
Baltimore, Grove to eastern city limits	No. 91, 1900.	Sheet asphalt.	1902.	All by abutters.
Chesapeake (Kenwood Ave.), Fairmount Ave. to Fayette	No. 119, 1901.	Brick.	1902.	All by abutters.
Bayard, Columbia Ave. to Herkimer	No. 138, 1901.	Asphalt blocks.	1902.	All by abutters.
Collins Ave., Frederick Road to Walrad Ave.	No. 129, 1901.	Macadam.	1902.	All by abutters.
Augusta Ave., Frederick Road to Walrad Ave.	No. 128, 1901.	Macadam.	1902.	All by abutters.

Park Ave., Centre to Monument	App'c'n of owners	Vitrified brick.	1902.	All by abutters.
Baltimore, Kenwood Ave. to Grove	No. 5, 1901.	Sheet asphalt.	1902.	Tax levy.
Hanover, Fort Ave. to Winder	No. 5, 1901.	Belgian blocks.	1902.	Tax levy.
St. Paul, North Ave. to Twenty-fifth	No. 5, 1901.	Sheet asphalt.	1902.	Tax levy.
North Ave., Greenmount Ave. to Broadway	No. 5, 1901.	Asphalt blocks.	1902.	Tax levy.
Ashland Ave., Patterson Park Ave. to Chester	No. 21, 1902.	Asphalt blocks.	1903.	Abutters.
Calvert, Baltimore to German	No. 72, 1902.	Wood blocks.	1903.	Abutters ($7.85 per front foot).
Hoffman, Bond to Broadway	No. 105, 1902.	Vitrified brick.	1903.	Abutters.
McCulloh, Lanvale to Lafayette Ave	No. 5, 1901.	Asphalt blocks.	1903.	Tax levy.
North Ave., Pennsylvania Ave. 150 ft. west	No. 5, 1901.	Asphalt blocks.	1903.	Tax levy.
Fulton Ave., Pennsylvania Ave. to Druid Hill Ave	No. 5, 1901.	Asphalt blocks.	1903.	Tax levy.
Warren Ave., Light St. 1,380 ft. west	No. 5, 1901.	Asphalt blocks.	1903.	Tax levy.
Twelfth, Windsor Mill Road to Windsor Ave	No. 152, 1903.	Macadam.	1904.	Abutters.
Clifton Ave., Tenth to Chelsea Terrace	No. 155, 1903.	Macadam.	1904.	Abutters.
Tenth, Windsor Mill Road to Chesapeake Ave.	No. 149, 1903.	Macadam.	1904.	Abutters.
McComas, Hanover to Creek Alley	No. 156, 1903.	Asphalt blocks.	1904.	Tax levy.
Eighth, North Ave. to Walbrook Ave	No. 151, 1903.	Macadam.	1905.	Abutters.
Walbrook Ave, Ninth to Thirteenth	No. 52, 1904.	Macadam.	1905.	Abutters.
Courtland, Lexington to Saratoga	No. 104, 1904.	Wood blocks.	1905.	Abutters.
Grove, Fairmount Ave. to Fayette	No. 51, 1904.	Vitrified brick.	1905.	Abutters.
Patuxent, Baltimore to Fairmount Ave	No. 107, 1904.	Vitrified brick.	1905.	Abutters.
Smallwood, Pratt to Frederick Ave	No. 126, 1904.	Belgian blocks.	1905.	Abutters.
Harlem Ave., Calhoun to Gilmor	No. 202, 1905.	Asphalt blocks.	1905.	Tax levy.
Gilmor, Edmondson Ave. to Harlem Ave	No. 202, 1905.	Asphalt blocks.	1905.	Tax levy.
North Ave., Broadway to Washington	No. 202, 1905.	Asphalt blocks.	1905.	Tax levy.
North Ave., Mt. Royal Ave. to bridge	No. 202, 1905.	Asphalt blocks.	1905.	Tax levy.
North Ave., Greenmount Ave. to Oak	No. 202, 1905.	Asphalt blocks.	1905.	Tax levy.
Ensor, Chase to Harford Ave	No. 202, 1905.	Vitrified brick.	1905.	Tax levy.
Orleans, Broadway to Patterson Park Ave	No. 202, 1905.	Asphalt blocks.	1905.	Tax levy.
High, Baltimore to Pratt	No. 202, 1905.	Belgian blocks.	1905.	Tax levy.
Hoffman, Luzerne to Lakewood Ave	No. 101, 1904.	Vitrified brick.	1905.	Tax levy.

TABLE No. 5 (Continued)—*Paving in Baltimore*, 1896-1910.

Street.	Ordinance.	Material.	Paved.	Source of Payment.
Lakewood Ave., Hoffman to Oliver	No. 101, 1904.	Vitrified brick.	1905.	Tax levy.
Patuxent, Baltimore to Eastern Ave	No. 243, 1905.	Asphalt blocks.	1906.	Abutters.
Evergreen Terrace, Fulton Ave. to Orem Lane		Asphalt blocks.	1906.	Abutters.
Lamont Ave., Oliver to Ensor	No. 93, 1904.	Asphalt blocks.	1906.	Abutters.
Chesapeake, Tenth to Liberty Road	No. 106, 1904.	Macadam.	1906.	Abutters.
Henry, Warren Ave. to Hamburg	No. 60, 1902.	Belgian blocks.	1906.	Abutters.
Edmondson Ave., Calhoun to Gilmor	No. 150, 1906.	Asphalt blocks.	1906.	Tax levy.
Robert, Eutaw to Madison	No. 150, 1906.	Asphalt blocks.	1906.	Tax levy.
Linden Ave., Madison Ave. to Fifth Ave	No. 150, 1906.	Wood blocks.	1906.	Tax levy.
Franklin, Howard to Eutaw	No. 150, 1906.	Wood blocks.	1906.	Tax levy.
Madison, Charles to Calvert	No. 150, 1906.	Bitulithic.	1906.	Tax levy.
Park Ave., McMechen to Laurens	No. 150, 1906.	Bitulithic.	1906.	Tax levy.
Mosher, Monroe to Appleton	No. 150, 1906.	Bitulithic.	1906.	Tax levy.
Lee, Sharp to Light	No. 150, 1906.	Belgian blocks.	1906.	Tax levy.
Ostend, Hanover to Light	No. 150, 1906.	Sheet asphalt.	1906.	Tax levy.
Park Ave., Monument to Richmond	No. 182, 1904.	Asphalt blocks.	1906.	Tax levy.
Calvert, Fayette to Lexington	No. 198, 1905.	Wood blocks.	1906.	Tax levy.
Lexington, Calvert to Charles	No. 198, 1905.	Vitrified brick.	1906.	Tax levy.
Lexington, Charles to Liberty	No. 143, 1906.	Vitrified brick.	1906.	Western Md. Fund.
Collington Ave., Preston to Biddle	No. 259, 1905.	Asphalt blocks.	1906.	Tax levy.
Mosher, Mt. Royal Ave. to Elm	No. 246, 1905.	Asphalt blocks.	1906.	Tax levy.
Holliday, Baltimore to Fayette	No. 136, 1906.	Wood blocks.	1906.	Western Md. Fund.
High, Baltimore to Pratt	No. 202, 1905.	Belgian blocks.	1906.	Tax levy.
Orleans, Broadway to Patterson Park Ave	No. 202, 1905.	Asphalt blocks.	1906.	Tax levy.
Caroline, Hoffman to Oliver	No. 121, 1906.	Wood blocks.	1907.	Tax levy.
College Alley, Little Pleasant to Mulberry	No. 181, 1906.	Vitrified brick.	1907.	Tax levy.
Division, McMechen to Mosher	No. 186, 1906.	Wood blocks.	1907.	Tax levy.

Greene, Lombard to Pratt	No. 121, 1906.	Wood blocks.	1907.	Tax levy.
Glover, Hudson to Fait Ave	No. 171, 1906.	Vitrified brick.	1907.	Abutters.
Little Garden, Ross to Monument	No. 186, 1906.	Bitulithic.	1907.	Tax levy.
Gough, Broadway to Patterson Park Ave	No. 150, 1906.	Sheet asphalt.	1907.	Tax levy.
Hoffman, Eden to Caroline	No. 150, 1906.	Wood blocks.	1907.	Tax levy.
Jefferson, Broadway to Wolfe	No. 150, 1906.	Wood blocks.	1907.	Tax levy.
Monroe, B. & O. R. R. to Columbia Ave	No. 258, 1907.	Belgian blocks.	1909.	Abutters.
Monument, Broadway to Wolfe	No. 150, 1906.	Wood blocks.	1907.	Tax levy.
North Ave., Mt. Royal Ave. to Druid Hill Ave.	No. 150, 1906.	Asphalt blocks.	1907.	Tax levy.
Ross, Howard to Eutaw	No. 186, 1906.	Bitulithic.	1907.	Tax levy.
Riverside Ave., Hamburg to Randall	No. 150, 1906.	Bitulithic.	1907.	Tax levy.
St. Paul Street Boulevard, Thirty-first to Boundary Ave	No. 145, 1904.	Macadam.	1907.	Tax levy.
Woodbrook Ave., Fulton Ave. to Clifton Ave.	No. 150, 1906.	Asphalt blocks.	1907.	Tax levy.
Heath, Light to Johnson	No. 269, 1907.	Bitulithic.	1908.	Tax levy.
Lakewood Ave., Eastern Ave. to Canton Ave.	No. 45, 1907.	Vitrified brick.	1908.	Tax levy.
Marion, Howard to Eutaw	No. 150, 1908.	Belgian blocks.	1908.	Tax levy.
Franklin, Eutaw to Pennsylvania Ave	No. 255, 1907.	Belgian blocks.	1908.	Tax levy.
Fayette, Smallwood to Bentalou	No. 222, 1908.	Vitrified brick.	1908.	Tax levy.
Fremont Ave., Pratt to Ridgely	No. 24, 1907. / No. 150, 1906.	Belgian blocks.	1908.	Tax levy.
Presstman, Fulton Ave. to old western b'd'y.	No. 142, 1906.	Sheet asphalt.	1909.	Abutters.
Ann, Gough to Pratt	No. 222, 1908.	Sheet asphalt.	1909.	Tax levy.
Aisquith, Lexington to Orleans	No. 222, 1908.	Belgian blocks.	1909.	Tax levy.
Callender Alley, Columbia Ave. to St. Peter	No. 222, 1908.	Vitrified brick.	1909.	Tax levy.
Chester, Orleans to Baltimore	No. 222, 1908.	Sheet asphalt.	1909.	Tax levy.
Clement, William to Riverside Ave	No. 222, 1908.	Bitulithic.	1909.	Tax levy.
Curley, Baltimore to Fairmount Ave	No. 193, 1908.	Vitrified brick.	1909.	Abutters.
Canton, Lombard to Eastern Ave	No. 282, 1909.	.....	1909.	One-half by abutters.
Ensor, Lamont Ave. to North Ave	No. 222, 1908.	Sheet asphalt.	1909.	Tax levy.
Fremont Ave., Baltimore to Lexington	No. 222, 1908.	Belgian blocks.	1909.	Tax levy.
Fulton Ave., Baltimore to Frederick Road	No. 222, 1908.	Belgian blocks.	1909.	Tax levy.
Fairmount Ave., Kenwood Ave. to eastern city limits	No. 182, 1908.	Vitrified brick.	1909.	Abutters.

TABLE No. 5 (Continued)—*Paving in Baltimore,* 1896-1910.

Street.	Ordinance.	Material.	Paved.	Source of Payment.
Garrett, Howard to Eutaw	No. 381, 1909.	Belgian blocks.	1909.	Tax levy.
Hargrove Alley, Preston to Mt. Royal Ave.	No. 380, 1909.	Vitrified brick.	1909.	Tax levy.
Lanvale, Eutaw to Linden Ave.	No. 222, 1908.	Sheet asphalt.	1909.	Tax levy.
Lovegrove Alley, Preston to Mt. Royal Ave.	No. 337, 1909.	Vitrified brick.	1909.	Tax levy.
McCulloh (Tiffany) Alley, Bloom to Gold	No. 222, 1908.	Vitrified brick.	1909.	Tax levy.
North Ave., Washington to Gay	No. 183, 1908.	Sheet asphalt.	1909.	Tax levy.
Oliver, Caroline to alley east of Central Ave.	No. 222, 1908.	Sheet asphalt.	1909.	Tax levy.
O'Donnell, Chesapeake to Canton	No. 222, 1908.	Vitrified brick.	1909.	Tax levy.
Payson, Baltimore to Fayette	No. 222, 1908.	Sheet asphalt.	1909.	Tax levy.
Perry, Light to Charles	No. 48, 1907.	Belgian blocks.	1909.	Tax levy.
Park Ave., Lexington to Fayette	No. 222, 1908.	Belgian blocks.	1909.	Tax levy.
Stag Alley, Lexington to Marion	No. 345, 1909.	Vitrified brick.	1909.	Tax levy.
Wolfe, Monument to Jefferson	No. 287, 1909.	Sheet asphalt.	1909.	Tax levy.
Wilson, Bolton to Park Ave.	No. 222, 1908.	Sheet asphalt.	1909.	Tax levy.
William, Warren Ave. to Montgomery	No. 222, 1908.	Bitulithic.	1909	Tax levy.
Addison Alley, Ramsay to Wilkens Ave.	No. 420, 1909.	Vitrified brick.	1910.	Tax levy.
Carey, Columbia Ave. to Pratt	No. 420, 1909.	Belgian blocks.	1910.	Tax levy.
Eager, Homewood Ave. to Ensor	No. 222, 1908.	Sheet asphalt.	1910.	Tax levy.
Fayette, Lakewood Ave. to eastern city limits	No. 420, 1909.	Sheet asphalt.	1910.	Tax levy.
Hollins, Calverton Road to Wilkens Ave.	No. 420, 1909.	Vitrified brick.	1910.	Tax levy.
Laurens, Park Ave. to Bolton	No. 532, 1910.	Bitulithic.	1910.	Tax levy.
Lovegrove Alley, Trenton to North Ave.	No. 420, 1909.	Vitrified brick.	1910.	Tax levy.
Marion, Howard to Park Ave.	No. 491, 1910.	Belgian blocks.	1910.	Tax levy.
Morton Alley, Hamilton to Centre	No. 420, 1909.	Vitrified brick.	1910.	Tax levy.
North Ave., Druid Hill Ave. to Payson	No. 420, 1909.	Sheet asphalt.	1910.	Tax levy.
Ostend, Race to Hanover	No. 420, 1909.	Vitrified brick.	1910.	Tax levy.
Patuxent, Fleet to Fait Ave.	No. 563, 1910.	Vitrified brick.	1910.	Abutters.

Philadelphia Road, Luzerne to eastern city limits	No. 420, 1909.	Vitrified brick.	1910.	Tax levy.
Port, North Ave. to Lafayette Ave	No. 352, 1909.	Vitrified brick.	1910.	Abutters.
Twenty-sixth, Eastern Ave. 1,153 ft. northward.	No. 420, 1909.	Macadam.	1910.	Tax levy.
Wilkens Ave., Fulton Ave. to old western b'd'y.	No. 420, 1909.	Sheet asphalt.	1910.	Tax levy.
Valley, Chase to Ashland Ave	No. 222, 1908.	Sheet asphalt.	1910.	Tax levy.
Hollins, Poppleton east 601 ft	No. 558, 1910.	Vitrified brick.	1910.	Abutters.
Patuxent, Philadelphia Road to Jefferson	No. 313, 1909.	Vitrified brick.	1910.	Abutters.

TABLE No. 6—*Paving by Private Contract.*

Street.	Material.	Paved.	Source of Payment.
Bradford, Lanvale to Townsend	Vitrified brick.	1899.	Owners.
Randall, Covington to Bell	Vitrified brick.	1899.	Owners.
Port, Lanvale to Townsend	Vitrified brick.	1899.	Owners.
Morton Alley, Read to Madison	Vitrified brick.	1899.	Owners.
Carroll, Stockholm to Carey	Vitrified brick.	1899.	Owners.
Carey, Ward to Carroll	Vitrified brick.	1900.	Owners.
Carey, Carroll to Cleveland	Vitrified brick.	1900.	Owners.
Twenty-sixth, St. Paul to Lovegrove Alley	Macadam.	1900.	Owners.
Monroe, 184 feet south of North Ave	Vitrified brick.	1900.	Owners.
Mulberry, Monroe to Payson	Vitrified brick.	1900.	Owners.
St. Paul, Thirtieth to Thirty-first	Sheet asphalt and vitrified brick.	1901.	Owners.
Payson, Baltimore to Hollins	Vitrified brick.	1901.	Owners.
Twenty-fifth, Charles to Maryland Ave	Asphalt blocks	1901.	Owners.
Calvert, Twenty-ninth to Thirty-first	Vitrified brick.	1901.	Owners.
Appleton, North Ave. to Northwest	Vitrified brick.	1901.	Owners.
Monroe, North Ave. to Northwest	Vitrified brick.	1901.	Owners.
Baxter, Baltimore to Fairmount Ave	Vitrified brick.	1901.	Owners.
Lorraine, York Road to Barclay	Vitrified brick.	1901.	Owners.
Alley west of Baltimore, Baxter to Kenwood Ave	Vitrified brick.	1901.	Owners.
Alley west of North Ave., west from Fulton Ave	Vitrified brick.	1901.	Owners.
Alley west of Eager, west from St. Paul	Vitrified brick.	1901.	Owners.
"L" Alley west of Park Ave	Vitrified brick.	1901.	Owners.
Thirtieth, St. Paul to Calvert	Vitrified brick.	1901.	Owners.
Holliday, Centre to Monument	Belgian blocks.	1901.	Owners.
Holliday, Madison to Monument	Belgian blocks.	1901.	Owners.
North, Madison to Centre	Belgian blocks.	1901.	Owners.
North, Read to Eager	Belgian blocks.	1901.	Owners.
Eutaw, Camden to Barre	Belgian blocks.	1901.	Owners.
Mosher, Appleton to Payson	Vitrified brick.	1905.	Owners.

TABLE No. 7—*Special Assessments for Paving as Collected by City Collector.*

1873	$18,056 49	1893	.....
1874	7,269 46	1894	$5,223 14
1875	64,309 86	1895	56,462 06
1876	68,416 93	1896	77,346 44
1877	128,979 49	1897	45,638 08
1878	35,622 18	1898	26,025 70
1879	23,952 35	1899	6,718 11
1880	69,046 58	1900	4,952 10
1881	131,857 15	1901	59,006 48
1882	78,609 32	1902	32,555 19
1883	133,506 68	1903	8,886 16
1884	39,901 15	1904	15,592 26
1885	175,352 74	1905	26,222 49
1886	78,742 90	1906	55,629 34
1887	49,309 61	1907	39,823 93
1888	64,011 52	1908	24,161 84
1889	82,144 16	1909	30,614 43
1890	47,836 56	1910	13,950 53
1891	203 15		
1892	17 32	Total	$1,825,953 88

FIFTY-SECOND ANNUAL REPORT

OF THE

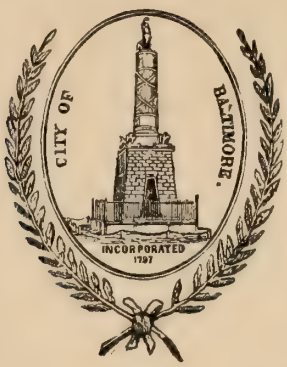
Board of Park Commissioners

TO THE

Mayor and City Council of Baltimore

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911



BALTIMORE
MEYER & THALHEIMER
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1912

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Board of Park Commissioners

OF THE

CITY OF BALTIMORE, MARYLAND

1911

GEORGE WEEMS WILLIAMS, Esq., *President.*

JOHN S. GITTINGS, Esq.

ALFRED E. BOOTH, Esq.

MILTON B. WILLIAMS, Esq.

DOUGLAS M. WYLIE, Esq.

William S. Manning, *General Superintendent.*

J. V. Kelly, *Secretary-Treasurer.*

REPORT OF THE

BOARD OF PARK COMMISSIONERS

BALTIMORE, March 14, 1912.

To the Mayor and City Council of Baltimore.

GENTLEMEN—The Board of Park Commissioners herewith submit their report for the year 1911.

The improvements and work done during the year are set forth in the report of the General Superintendent, dated March 12, 1912, which is hereto annexed.

A detailed financial statement of all the receipts and disbursements during the past year is contained in the report of the Secretary and Treasurer, which is also hereto annexed.

During the past year, the work of making the connecting parkway between Druid Hill Park and Wyman Park was substantially completed, and this parkway will be shortly opened to the public. This is the first of the system of connecting parkways to be completed, and involved the expenditure of a considerable sum of money. The concrete bridge which carries this parkway across Stony Run Valley and the Maryland and Pennsylvania Railroad tracks is a part of this improvement. We believe that this parkway will be a source of pleasure and of considerable use to the people of this city.

As you are aware, it is proposed to connect Gwynn's Falls Park and Druid Hill Park by a parkway to be known as Gwynn's Falls Parkway, and Wyman Park and Clifton Park

by means of Thirty-third street and the Alameda. All of these last-mentioned streets or parkways will be 120 feet in width, and a portion thereof parked. Ordinances have been passed providing for the laying out of these parkways and the work of making these improvements will be done under the joint supervision of the Commissioners for Opening Streets and this Board. The Alameda, as laid down by ordinance, was duly platted and benefits and damages duly assessed, but owing to the protest of certain property holders, the question of the cost making this improvement along the lines originally intended was further investigated and the conclusion was reached that a better and at the same time cheaper route for this parkway could be established. Accordingly, an ordinance to change the route of this parkway will be shortly prepared and offered.

We would like to call your attention to that portion of out report for the years 1909 and 1910 in which was discussed the importance of acquiring the land necessary for these parkways. The value of this land is, of course, due to the growth of the city and its suburban development constantly increasing, and buildings are being erected, from time to time, in the bed of these parkways which will have to be condemned in order that these improvements may be made. It is, therefore, highly important that the land necessary for these parkways be acquired at as early a date as is practicable. We fully realize that these improvements involve the expenditure of large sums of money, but we think it the part of wisdom to condemn or acquire the land necessary for these improvements as early as possible, even if the work of completing the improvements may not be immediately commenced or completed.

As stated in our report above referred to, this Board stands ready and willing to co-operate by assisting in the financing of these projects. The increase in the number of persons

using the parks is most gratifying, and the large number of persons using the athletic facilities justifies, in our judgment, the expenditures made to furnish these facilities.

Very respectfully,

BOARD OF PARK COMMISSIONERS,

By GEORGE WEEMS WILLIAMS,
President.

REPORT OF THE

GENERAL SUPERINTENDENT

BALTIMORE, March 12, 1912.

To the Honorable Board of
Park Commissioners of Baltimore, Md.

GENTLEMEN—Following is the general summary of the operations of Department of Parks and Squares for the year 1911.

There was appropiated for expenses of maintenance and improvements in the parks and squares for the past year $603,390, of which $588,728.53 was actually received. Of the amount received, $110,154.44 was spent on improvements, $477,138.61 was expended for fixed charges and maintenance purposes and a balance of $1,435.48 was carried over to this year's account. For figures showing the detailed expenditures in these connections, reference should be made to the statements of the Secretary and Treasurer which are embodied in this report.

The new improvements made during the year include grading the roadbed from Wyman Park to Druid Hill Park and constructing a pitch-macadam road surface over this line of road; also the construction of a single-arch reinforced concrete bridge spanning the Stony Run Valley and the Maryland and Pennsylvania Railroad tracks, which are located in this valley; this bridge being 48 feet wide and 262 feet long. A steel arch supporting the Huntingdon avenue railway viaduct, in order to provide ample width and heighth for the purposes of the Wyman-Druid Hill road to pass under the

viaduct, was constructed. Electric conduits, for lighting the road, catch basins, with their outletting drains, were also constructed along this road, and at Cedar and Viaduct avenues a concrete wall with an iron fence upon it with reinforced concrete lighting posts was constructed at the entrance from Cedar avenue to the Wyman-Druid Hill road as well as a branch road from the end of Cedar avenue.

There was a large amount of planting done in the various parks, and a considerable amount of underground land drainage and surface-water catch basins and drainage lines constructed.

At Patterson Park 175,000 bricks were laid on path surfaces, and additional tennis courts constructed. One and two-thirds miles of walk were constructed along the mill race in Gwynn's Falls Reservation and the steep slope below the mill race walk was covered with shrubs and other ground-covering plants.

At Morris avenue and the intersection of the mill race a 36-inch pipe was installed to carry the sewerage-laden stream from Morris avenue to a point below the mill race, and a considerable amount of grading, path building, lawn construction and shrub planting done there.

At City Springs Square and at Carroll Park shelters were constructed for the children's playground areas.

At Clifton Park a large amount of filling was done along Washington street and the Baltimore and Ohio Railroad.

At Swann Park a considerable amount of grading and at Latrobe Park extension a large amount of filling material was used.

At Druid Hill Park, along Swann avenue, between Washington Statue and the Madison Avenue Gate, there were 5,500 square yards of pitch-macadam road surfacing laid, concrete curbs in place of cobble stone gutters constructed, electric

light conduits installed, together with the electrically lighting of this driveway.

At Riverside Park there were 9,000 square yards of pitch macadam laid on the surfaces of the roads and paths and all of the old style of park settees replaced by the permanent type of park seat, which is built on iron castings which have been deeply planted in the ground in concrete.

There were 38,409 people who played soccer in the various parks of the system during the year, and there were 189,713 people who took part in the various other games (not including baseball) in the various parks.

At Patterson Park 140,000 people availed themselves of the use of the outdoor swimming pool.

There were 297 picnics held in Druid Hill Park at the various picnic grounds, for which use permits were issued.

There were 1,094 permits issued for the playing of baseball in Druid Hill Park, and 57 permits were issued for foot-fall playing in Druid Hill Park, and the lacrosse grounds were very much used.

Of the nineteen tennis courts in Druid Hill Park there was no record of the number of users kept, but they were largely patronized; while at Clifton Park there were approximately 5,000 games played on the ten courts.

There were approximately 800 games of baseball played at Clifton Park, where there are six diamonds. At the other parks these games were largely played and attended by spectators.

At Patterson Park the officers and sailors from the German battleship Hansa had entire use of the athletic grounds, swimming pool and ball fields on two or three occasions while their vessel was in the harbor. They also came to Druid Hill Park for a day's frolic of ball playing and were lunched from the Mansion House.

The municipal games held at Patterson Park athletic fields on September 12 were very largely attended, in connection with which 700 athletes entered and 590 participated.

During the month of December a careful estimate was made at Patterson Park of the spectators during the games of that month, resulting in a figure of 49,700.

There were 28 permits issued for different teams of the city to hold meets at the Patterson Park athletic fields during the fall season and the record of attendance during these meets was 104,300.

On the Fourth of July Patterson Park, Druid Hill Park, Clifton Park and Carroll Park athletic fields were turned over to the use of the Safe and Sane Fourth of July Celebration Committee, and all of the day and evening great crowds attended these features.

There were one hundred and twenty-eight arrests in Druid Hill Park, ninety-six of which were for reckless driving of automobiles. More arrests were made in Druid Hill Park than all of the rest of the parks combined.

Very respectfully.

WM. S. MANNING,

General Superintendent.

REPORT OF THE SECRETARY, 1911

BALTIMORE, December 31, 1911.

To the Honorable the Board of Park Commissioners.

GENTLEMEN—I submit herewith my report as Secretary of the Board of Park Commissioners for the year ending December 31, 1911.

Very respectfully,

J. V. KELLY,

Secretary.

FINANCIAL STATEMENT

FOR YEAR ENDING DECEMBER 31, 1911.

Cash on hand January 1, 1911, made up of accumulated balances as follows:		Dr.	Cr.
Receipts in excess of expenditures, 1901			$4,686.31
Receipts in excess of expenditures, 1902			6,211.22
Receipts in excess of expenditures, 1903			7,732.74
Receipts in excess of expenditures, 1904			13,151.71
Receipts in excess of expenditures, 1905			55,969.14
Excess of expenditures over receipts, 1906		$16,319.82	
Receipts in excess of expenditures, 1907			38,812.79
Excess of expenditures over receipts, 1908		73,669.18	
Receipts in excess of expenditures, 1909			7,312.29
Receipts in excess of expenditures, 1910			21,305.34
		$89,989.00	$155,181.54
			89,989.00
Total cash on hand January 1, 1911			$65,192.54
Receipts, 1911:			
Railway tax	$514,697.56		
Rentals	2,971.06		
Sales	2,497.77		
Fines	27.50		
Remittances	482.15		
Monument toll	605.05		
Insurances	2,254.90		
	$523,535.99		
Total appropriation for 1911	$603,390.04		
	523,535.99		
		$79,854.05	
Amounts carried forward		$79,854.05	$65,192.54

			Dr.	Cr.
Amounts brought forward			$79,854.05	$65,192.54
DISBURSEMENTS ON APPROPRIATIONS.				
Salaries—Office:				
Appropriation		$5,000.00		
Disbursed	$4,853.46			
Balance	146.54			146.54
		5,000.00		
Salaries—Parks and Squares:				
Appropriation		$217,738.50		
Disbursed	$201,803.82			
Balance	15,934.68			15,934.68
		217,738.50		
Expense—Office:				
Appropriation		$2,000.00		
Disbursed	$1,997.12			
Balance	2.88			$2.88
		2,000.00		
Expenses—Parks and Squares:				
Appropriation		$268,484.47		
Disbursed:				
Maint'ce. $144,129.22				
Fxd. chgs. 124,354.99				
	$268,484.21			
Balance	.26			.26
		268,484.47		
New Improvements:				
Appropriation		$110,167.07		
Disbursed	$110,154.44			
Balance	12.63			12.63
		110,167.07		
Total credit balances				$81,289.53
Total debit balances			79,854.05	79,854.05
Cash balance on hand January 1, 1912				$1,435.48

RECEIPTS IN DETAIL, 1911.

Balance, January 1, 1911	$65,192.54
Railway tax, 1911	514,697.56
Rentals—	
Mansion, Druid Hill	732.00
Cottages, Clifton	27.59
Cottages, Herring Run	240.50
Lakes, Druid Hill	1,075.00
Lakes, Patterson	415 00
Cottages, Woodyear	10.00
Dwelling, Wyman	399.96
Towels at toilet	71.01
Sales	
Old automobile	325.00
Wood	209.00
Sheep	245.00
Wool	55.83
Old materials	314.78
Cement bags	43.30
Hay	252.00
Old buildings	85.00
Horses and mules	670.00
Sand and gravel	44.70
Old camel	100.00
Empty barrels	47.50
Contract plans	5.00
Elk head and hide	5.00
Franchise to cross Green Spring avenue	10.00
Electrical service	85.66
Fines	27.50
Monument toll, Washington Monument	605.05
Remittances, orders and rolls	482.15
Insurance	2,254.90
	$588,728.53

EXPENDITURES IN DETAIL, 1911.

Salaries—Office.

Original appropriation		$5,000.00
Disbursements.		
Secretary-Treasurer, J. V. Kelly	$1,800.00	
Stenographer and clerk, Clark Kerr	999.96	
Clerk, Helen M. Spangler	715.00	
Clerk, Margaret M. Hanson	624.00	
Clerk, Cora L. Cherry	312.00	
Clerk, Bertha M. Pfeiffer	294.00	
Boy, Royal Rosenberger	108.50	
Total disbursements		4,853.46
Surplus of credit		$146.54
Balance to surplus, Park Board, 1912		146.54

Expenses—Office.

Original appropriation, expenses		$2,000.00
Disbursements.		
Stamps and postals	$130.00	
Stationery and printing	609.60	
Advertising	436.00	
Subscriptions to papers	13.91	
Directories (one)	7.00	
Typewriter supplies and repairs (new machine)	133.30	
Furniture	325.87	
Sundries (washing towels, etc.)	169.20	
Bond premiums	45.00	
Car tickets	15.00	
Telephones	112.24	
Total disbursements		1,997.12
Surplus of credit		$2.88
Balance to surplus, Park Board, 1912		2.88

Expenses—Parks and Squares.

Original appropriation		$268,484.47
DISBURSEMENTS.		
Administration, parks	$1,055.33	
Superintending, parks	1,186.20	
Conservatories and greenhouses	6,553.76	
Outdoor gardening and forestry	7,090.15	
Lawns and fields	21,817.54	
Roads, drives and gutters	11,928.96	
Swann avenue and Riverside drives, special	14,929.48	
Paths, walks, steps and benches	7,497.52	
Bricks for paths, special	5,792.55	
Athletic fields and playgrounds, general	4,565.67	
Buildings, pavilions and toilets	6,481.71	
Policing and gatekeeping	2,811.46	
Live stock, stable, etc	5,515.93	
New stock, horses and mules	1,200.00	
Zoological collection	2,638.26	
Fountains, springs, pumps	1,468.54	
Lakes and ponds	175.69	
Quarry	563.85	
Repair shop and shoeing	1,570.24	
Supplies, flags, etc	3,532.30	
Renewal flag poles	1,330.00	
Monuments	376.18	
Car tickets	160.00	
Conduits and electrical equipment	3,696.11	
Electrical lighting service	16,499.39	
Gas, oil and naphtha lighting	6,365.75	
Automobile	5,394.04	
Telephones	543.20	
Sinking Fund, old loans	25,734.87	
Interest, Clifton Loan	35,000.00	
Interest, Patterson Loan	8,000.00	
Sinking Fund, 1955 Loan	8,800.00	
Interest, 1955 Loan	40,000.00	
Ground rents	6,820.12	
Balance on Jackson Property (Contingency Fund)	353.46	
Title examination Easterwood (Contingency Fund)	20.00	
Federal Hill Slope (1909 cont. settlement)	1,015.95	
Total disbursements		268,484.21
Surplus of credit		$ .26
Balance to surplus, Park Board, 1912		.26

Salaries—Parks and Squares.

Original appropriation, salaries.....$217,738.50

DISBURSEMENTS.

Administration, parks	$4,565.25	
Superintending, parks	7,443.93	
Conservatory, greenhouse and nursery	8,617.20	
Outdoor gardening and forestry	19,017.71	
Grading and planting, special	5,514.45	
Lawns and fields	40,810.29	
Roads, drives and gutters	14,017.95	
Resurfacing roads, special	859.69	
Paths, walks, steps and benches	16,896.22	
Athletic fields and playgrounds	4,649.79	
Buildings, pavilions and toilets	10,529.58	
Policing and gatekeeping	25,757.99	
Live stock, stable work	3,564.00	
Zoological collection	2,574.82	
Fauntains, springs and pumps	1,061.96	
Lakes and ponds	236.00	
Quarry	3,975.47	
Repair shop and shoeing	2,336.50	
General work	14,787.06	
Monuments	895.91	
Automobiles	1,238.55	
Engineering and Inspection	1,195.22	
Electric lighting	1,016.21	
Park concerts	9,694.70	
Wall, Franklin Road Bridge (mechanics)	547.37	
Total disbursements		201,803.82
Surplus of credit		$15,934.68
Balance to surplus, Park Board, 1912		15,934.68

Note—The following salaries are included in "Administration Parks":

General Superintendent, William S. Manning	$3,600.00
Property Agent, Carl K. Mengel	965.25

The following salaries are included in "Superintending Parks."

Superintendent of Druid Hill District, J. Fred. Wessler....	$1,560.00
Superintendent of Patterson District, Charles R. Jones....	1,560.00
Superintendent of Clifton District, James W. Boone.....	1,560.00
Superintendent of Washington Monument and Squares....	1,560.00
Keeper of Gwynn's Falls Reservation, Lloyd Norris.....	1,198.93

NEW IMPROVEMENTS, 1911.

Original appropriation.....			$110,167.07
DISBURSEMENTS.			
Wyman-Druid Hill Road—			
Filling and grading.....	$4,232.02		
Road building (D. M. Andrew Co.).	15,532.61		
Special inspection.....	874.64		
Supplies (stone, asphalt, etc.).....	617.25		
		$21,256.52	
Huntingdon avenue viaduct alterations—			
Consulting engineers (Special)....	$886.40		
Contract (Baltimore Bridge Co.)...	5,851.76		
		6,738.16	
Bridge, Wyman-Druid Hill—			
Construction (C. B. Clark & Co.)..	$46,176.80		
Salary of Park Inspector.....	1,080.00		
Consulting engineer (special).....	200.00		
Incidental expenses.....	125.89		
		47,582.69	
Concrete wall and fencing, Wyman Park.....		3,497.09	
Grading, Huntingdon avenue slopes, Wyman Park.....		3,906.44	
Electrical conduits and post lights.....		12,017.09	
Architects and Consulting Engineers—			
General work.....		2,467.06	
Park Engineering Corps—			
Salaries (improvements only).....	$7,189.51		
Expenses.....	794.80		
		7,984.31	
Drainage, Carroll Park.....		265.48	
Drainage, Venable Park.....		444.65	
Drainage, Ashburton Park.....		318.16	
Amounts carried forward.....		$106,477.65	$110,167.07

Amounts brought forward	$106,477.65	$110,167.07
Druid Hill Pipe Shelter	118.25	
Druid Hill Deer Enclosure	375.26	
Planting (general)	2,930.45	
Miscellaneous improvements	252.83	
Total disbursements		110,154.44
Surplus of credit		$12.63
Balance to surplus, Park Board, 1912		12.63

PARK EXTENSION, 1911.

Northwest Section.

(Funds taken from the proceeds of the $1,000,000 Loan, authorized by Chapter 338 of the Acts of the General Assembly of Maryland of 1904, and Ordinance No. 228, approved March 20, 1905.)

Appropriation		$250,000.00
Disbursements, 1906	$14,371.45	
Disbursements, 1907	221,109.03	
Disbursements, 1908	1,177.82	
Disbursements, 1909	10,228.73	
Disbursements, 1910	352.80	
		247,239.83
Balance, December 31, 1910		$2,760.17
Less discount on sale of stock		2,760.17
Balance to 1911 account		

(No Disbursements.)

PARK EXTENSION, 1911.

Southwest Section.

(Funds taken from the proceeds of the $1,000,000 Loan, authorized by Chapter 338 of the Acts of the General Assembly of Maryland of 1904, and Ordinance No. 228, approved March 20, 1905.)

Appropriation		$250,000.00
Disbursements, 1906	$121,138.15	
Disbursements, 1907	11,792.47	
Disbursements, 1908	84,227.21	
Disbursements, 1909	2,582.71	
Disbursements, 1910	83.33	
		219,823.87
Balance, December 31, 1910		$30,176.13
Less discount on sale of stock		2,760.18
Balance to 1911 account		$27,415.95

(No Disbursements.)

PARK EXTENSION, 1911.

Northeast Section.

(Funds taken from the proceeds of the $1,000,000 Loan, authorized by Chapter 338 of the Acts of the General Assembly of Maryland of 1904, and Ordinance No. 228, approved March 20, 1905.)

Appropriation		$250,000.00
Disbursements, 1906	$741.70	
Disbursements, 1907	67.359.79	
Disbursements, 1908	142,924.10	
Disbursements, 1909	1,618.75	
Disbursements, 1910	1,236.03	
		213,880.37
Balance, December 31, 1910		$36,119.63
Less discount on sale of stock		2,760.18
Balance to 1911 account		$33,359.45

DISBURSEMENTS.

Voucher No.	Paid To	For	Amount.	
8397	Wm. Penn Louis	Title exam	$60.00	
8724	Ellen G. Porter	Land	197.05	
8725	Jno.G. and Louis Maier	Land	8,000.00	
9180	J. J.Valentini	Land	3,098.50	
9181	Wm. P. Cole	Recording	2.75	
9625	Title Guarantee & Trust Co.	Title exam	30.50	
9333	Harris & Thompson	Ground rent	87.00	
	Total disbursements		$11,475.80	11,475.80
	Balance, December 31, 1911			$21,883.65

PARK EXTENSION, 1911.

Southeast Section.

(Funds taken from the proceeds of the $1,000,000 Loan, authorized by Chapter 338 of the Acts of the General Assembly of Maryland of 1904, and Ordinance No. 228, Approved March 20, 1905.)

Appropriation		$250,000.00
Disbursements, 1906	$1,634.84	
Disbursements, 1907	135,684.63	
Disbursements, 1908	36,711.17	
Disbursements, 1909	150.00	
Disbursements, 1910		
		174,180.64
Balance, December 31, 1910		$75,819.36
Less discount on sale of stock		2,760.19
Balance to 1911 account		$73,059.17

DISBURSEMENTS.

Expenditures	
Balance, December 31, 1911	$73,059.17

PARK EXTENSION, 1911.

GENERAL.

(Funds taken from balance on $1,000,000 devoted to park acquirement out of 1945 $4,000,000 Loan.)

Appropriation	$1,630.80
Disbursements, 1910	200.76
Balance, December 31, 1910	$1,430.04

DISBURSEMENTS.

Voucher No.	Paid To	For	Amount	
8480	Robert Jackson	Improvements on land	$1,430.04	
				$1,430.04
	Total disbursements		$1,430.04	
	Balance, December 31, 1911			

SUMMARY STATEMENT.

Showing Payments Made on Account of Park Extension Out of $1,000,000 Loan in Each Section of the City, December 31, 1911.

Account.	Northwest.	Southwest.	Northeast.	Southeast.	Totals.
Purchase price of land	$235,356.06	$212,949.19	$218,341.11	$171,308.16	$837,954.52
Buildings on land	1,250.00	.....	.....	.....	1,250.00
Tax adjustments	477.26	586.60	18.16	.....	1,082.02
Acknowledgments	24.30	17.10	2.20	4.30	47.90
Recording deeds	220.00	89.65	87.95	34.25	431.85
Appraising property	1,475.00	150.00	425.00	950.00	3,000.00
Title examination and abstracts	3,130.40	2,666.65	1,746.30	1,139.95	8,683.30
Surveying	2,878.36	1,418.79	644.45	206.49	5,148.09
Olmsted Bros., advice and plans	910.27	750.48	876.07	62.50	2,599.32
Clerical and other help	1,229.01	1,098.83	1,625.01	474.99	4,427.84
Auctioneers and attorneys' fees	.....	50.00	100.00	.....	150.00
Advertising	208.38	.....	250.42	.....	458.80
Plats, maps, etc	42.20	26.58	1,102.50	.....	1,171.28
Car tickets	10.00	20.00	50.00	.....	80.00
Court costs	28.59	.....	.....	.....	28.59
Ground rent	.....	.....	87.00	.....	87.00
Totals	$247,239.83	$219,823.87	$225,356.17	$174,180.64	$866,600.51
Amount of loan	$250,000.00	$250,000.00	$250,000.00	$250,000.00	$1,000,000.00
Less discount on sale of stock	2,760.17	2,760.18	2,760.18	2,760.19	11,040.72
Appropriation	$247,239.83	$247,239.82	$247,239.82	$247,239.81	$988,959.28
Disbursements (see above)	247,239.83	219,823.87	225,356.17	174,180.64	866,600.51
Cash balance	.....	$27,415.95	$21,883.65	$73,059.17	$122,358.77

PARK ACREAGE, DECEMBER 31, 1911.

	Acquired.	Acreage.	Ground Rent.	Cost.
Mt. Vernon Squares (2)	1815	1.4	.....	Donated.
Washington Place Squares (2)	1815	.9	.....	Donated.
Eastern City Spring Square	1818	1.3	.....	$15,000 00
Patterson Park	1827	128.44	.....	465,157 29
Franklin Square	1839	2.3	.....	10,000 00
Jackson Square	1844	.6	.....	Donated.
Union Square	1847	2.0	.....	Donated.
Broadway Squares (19)	1851	5.7	.....	28,661 48
Ashland Square	1851	.01	.....	200 00
Madison Square	1853	3.4	.....	30,000 00
Eutaw Place Squares (9)	1853	5.6	.....	60,000 00
Lafayette Square	1859	2.9	.....	15,000 00
Druid Hill Park	1860	674.16	.....	720,760 53
Park Place Squares (5)	1860	1.7	.....	Donated.
Riverside Park	1862	17.2	$3,770 62*	77,488 78
Fulton Avenue Squares (17)	1866	4.0	.....	Donated.
Harlem Park	1869	9.05	.....	Donated.
Wilkens Avenue Squares (7)	1870	1.6	.....	30,000 00
Perkins Spring Square	1873	1.5	2,052 00*	34,200 00
Mt. Royal Squares (7)	1874	2.0	.....	9,790 28
Johnson Square	1877	2.5	.....	20,000 00
Federal Hill Park	1879	8.2	37 50	91,135 46
Collington Square	1880	5.0	960 00*	24,000 00
Liberty Triangle	1880	.02	.....	Donated.
Taney Place Squares (2)	1881	.8	.....	Donated.
Mt. Royal Terraces (3)	1884	2.0	.....	44,677 58
Carroll Park	1890	176.74	.....	307,229 42
Bolton Park (Mt. Royal Station)	1891	3.52	.....	103,433 00
Frick Triangle	1892	.05	.....	Donated.
Brewer Square	1892	.39	.....	Donated.
Bo-Lin Square	1893	.23	.....	Donated.
Maple Place	1893	.07	.....	Donated.
Clifton Park	1895	267.26	.....	754,125 81
Linden Avenue Triangle	1895	.01	.....	Donated.
Green Spring Avenue	1896	25.5	.....	Donated.
Callow Triangle	1898	.03	.....	Donated.
Gwynn's Falls Park	1902	374.19	.....	274,649 85
Latrobe Park	1902	13.80	.....	40,590 00
Swann Park	1902	11.31	.....	39,474 52
Wyman Park	1903	198.39	.....	122,604 12
Fifth Regiment Armory	1904	.25	.....	Donated.
City College Lot	1904	.14	.....	Donated.
Riggs Triangle	1905	.02	.....	456 00
Venable Park	1907	60.81	.....	67,726 00
Ashburton Park	1907	92.65	.....	36,052 40
Herring Run Park	1908	164.61	.....	109,111 96
Charles Street Boulevard	1908	2.28	.....	23,823 51
Philadelphia Triangle	1910	1.0	.....	26,737 52
Easterwood Park	1911	7.52	.....	23,500 00
Mondawmin Squares	1911	.26	.....	Donated.
Total Park Acreage	.....	2,285.31	.....	$3,605,585 51

*Owned by Commissioners of Finance.

REPORT

OF THE

PAVING COMMISSION

TO THE

Mayor and City Council of Baltimore

FOR THE

YEAR ENDED DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

Paving Commission's Report.

BALTIMORE, January 1, 1912.

HON. JAMES H. PRESTON, *Mayor of Baltimore.*

SIR—In accordance with the requirements of Section 1, Chapter 401, Acts of the General Assembly of Maryland for the year 1906, the Paving Commission has the honor to make the following report of its transactions for the year 1911, since its organization on May 31. On that date, in pursuance with orders from your Honor, the Commission qualified and organized by electing R. Keith Compton, chairman. Regular meetings were held, with a secretary *pro tem.*, from that date until July 5, when it adjourned until the third Wednesday in September; a permanent secretary, Mr. Charles A. Edel, being appointed on October 4.

During the intermission, in accordance with a resolution passed by the Commission on July 5, the chairman and a small engineering and clerical force were engaged upon a plan showing the improved streets and alleys existing at the time this Commission was inducted into office; the materials with which they were paved; the mileage of same and whether originally paved by assessment or out of the general tax levy; the area of the intersections of all streets and alleys; the aggregate and detailed depths of all corner lots, and a complete estimate of the cost of paving all the streets and alleys in the city with appropriate materials, together with all other information pertinent thereto. It was understood that neither the Annex nor the unpaved streets and alleys within the old boundary lines of the city were to be included in this estimate.

Before the estimate above referred to was closed, the chairman was instructed by your Honor and the Commission to visit the principal cities of the United States and study the

paving situation generally, so as to enable the Commission to proceed along modern, intelligent and economical lines. This order was complied with, and the chairman submitted his report to the Commission at its regular meeting held on September 20, embodying the results of this inspection, together with all data and a complete estimate of paving all the streets and alleys. This estimate is based on using belgian block for heavy, vitrified block for medium, and sheet asphalt or bituminous concrete for light traffic streets. Vitrified blocks are proposed for all streets under thirty feet between building lines, and also for alleys.

Including all the paving in the railway area, the estimate amounts to approximately ten million seven hundred thousand dollars ($10,700,000); *deducting for railway area which can be charged to the railway companies, the estimate is reduced to ten million two hundred thousand dollars* ($10,200,000) *for the city's portion.* It was further understood that the repaving or improvement of the old style improved streets should not be included in this estimate, but, more properly, should come out of the City Engineer's repair fund, for the time being, at least.

On September 27 and October 16, the Commission authorized the improvement of the following streets adjacent and leading up to the Fifth Regiment Armory, about one mile in length, so as to make the Armory more accessible to the public; with the understanding, however, that such action of the Commission was not to establish a precedent regarding any future plans that the Commission may decide upon:

STREET.	FROM	TO
Bolton St.	Hoffman St.	Lafayette Ave.
Hoffman St.	Eutaw St.	Brevard St.
Preston St.	Eutaw St.	Cathedral St
Brevard St.	Dolphin St.	Cathedral St.
Dolphin St.	Brevard St.	Mt. Royal Ave.

Contracts were awarded on November 11, 1911, and work was commenced immediately upon the signing of the contracts

To January 1, 1912, Bolton street had been completed (except two intersections); Hoffman street, from Linden avenue to Park avenue; and Dolphin street, from Mount Royal avenue to Brevard street, had also been completed. This work will soon close down, however, owing to the uncertainty of the weather, but will be resumed promptly in the spring.

To January 1, 1912, the Paving Commission has selected sixteen miles of streets for improvement, and surveys are now being made. These, with one mile which is now under construction, make a total of seventeen miles decided upon to date.

STREET	FROM	TO
Bolton St.	Hoffman St.	Lafayette Ave.
Hoffman St.	Eutaw St.	Brevard St.
Preston St.	Eutaw St.	Cathedral St.
Brevard St.	Dolphin St.	Cathedral St.
Dolphin St.	Brevard St.	Mt. Royal Ave.
Harford Ave.	Forrest St.	North Ave.
Aisquith St.	Orleans St.	Ashland Ave.
Aisquith St.	Harford Ave.	North Ave.
Ensor St.	Gay St.	Harford Ave.
Constitution St.	Madison St.	Front St.
Front St.	Gay St.	Forrest St.
High St.	Front St.	Lexington St.
High St.	Fayette St.	Baltimore St.
Chester St.	Chase St.	Monument St.
Chester St.	McElderry St.	Orleans St.
Camden St.	Hanover St.	Charles St.
Conway St.	Sharp St.	Light St.
Barre St.	Sharp St.	Charles St.
Jefferson St.	Wolfe St.	Patterson Pk. Ave.
Jefferson St.	Broadway	Aisquith St.
Hoffman St.	Greenmount Ave.	Eden St.
Hoffman St.	Caroline St.	Bond St.
Bond St.	North Ave.	Madison St.
Pine St.	Saratoga St.	German St.
Penn St.	German St.	Pratt St.
Eager St.	Jones Falls	Homewood Ave.
Eager St.	Ensor St.	Chester St.
Biddle St.	Jones Falls	Broadway
Madison St.	Greenmount Ave.	Patterson Pk. Ave.

STREET	FROM	TO
McElderry St.	E. side N. E. Market	Milton Ave.
Montford Ave.	McElderry St.	Baltimore St.
Milton Ave.	McElderry St.	Baltimore St.
Collington Ave.	Orleans St.	Ashland Ave.
Valley St.	Hoffman St.	Chase St.
Sharp St.	Camden St.	Hill St.
Lombard St.	Greene St.	Fremont Ave.
Caroline St.	Chase St.	Hoffman St.
Caroline St.	Oliver St.	North Ave.
Eden St.	Madison St.	Lanvale St.
Central Ave.	Lancaster St.	Harford Ave.
Ensor St.	Chase St.	Lamont Ave.
Preston St.	Valley St.	Gay St.
Lanvale St.	Ensor St.	Broadway
Lafayette Ave.	Aisquith St.	Broadway
Oliver St.	Lamont Ave.	Ensor St.
Hollins St.	Fremont St.	west 350 feet.

Eight additional miles have been referred to the Sewerage Commission, regarding the sewer construction; other streets will follow as rapidly as the status of the sewer construction will permit.

Having approximately $1,500,000 available for 1912, the Commission hopes to improve at least twenty-five miles of streets. In selecting streets for improvement, the Commission has adhered to a general scheme as far as practicable, and as closely as the progress and the location of the completed sewers would permit.

Necessarily, most of the improvements during 1912 will be in the territory east of Jones Falls and north of Fayette street, for the above reasons, although the Camden Station territory is being given consideration.

All precautions are being taken to prevent the future tearing up of our streets, by inserting advertisements in the daily papers, and serving written or printed notices on city departments, public service corporations, and the individual property owners.

On December 28, the Paving Commission passed a resolution endorsing your Honor's street tax plan, and suggesting

a per front foot rate of fifteen cents for streets twenty feet between curbs and over; a ten cent rate for street and alleys under twenty feet between curbs or between sides where no curbs exist, and a five cent rate for alleys; said rate to run for a period of ten years. These rates are merely suggestions at this time as the Chairman is now preparing figures which will give more definite and accurate data on the subject for further consideration by the Commission before the Bill is forwarded to the Legislature.

In view of this plan, the Commission decided to proceed with its work, charging the cost thereof to its appropriations and crediting its appropriations with the proceeds of the paving tax upon its passage by the Legislature.

This Commission has prepared standard specifications for all classes of pavements, which can be used by the City Engineer and the Annex Commission, should they so desire, and in this way considerable money can be saved and a contractor bidding for any department can see at a glance that all the specifications are standard.

Other than the Chairman and the Secretary, no permanent appointments were made during the year. A temporary stenographer was employed in the Chairman's office, while the City Engineer was drawn on for engineering assistance. Permanent appointments to the engineering force will shortly be made, the City Engineer, under the law, acting as Chief Engineer of this Commission.

On December 1, the Commission decided to employ the Baltimore Audit Company to open and establish its system of accounts, which system will show the expended and unexpended amounts of each contract and the itemized cost of each section of street in its respective contract. An account is also kept of each separate appropriation as required by the City Comptroller.

The Ordinance of Estimates for the year 1911 set aside the sum of five hundred thousand ($500,000) dollars for the use of this Commission. Of this amount three thousand nine hundred and thirty-nine dollars and twenty-two cents

($3,939.22) was expended during the year 1911, as per the following statement:

Administration salaries	$2,208	65
Salaries on surveys	877	68
Stationery, printing, etc	629	92
Improved paving, including advertising, incidentals, etc	222	97
	$3,939	22
Unexpended balance to be carried forward to 1912	$496,060	78

The disbursements for the year are further contained in a more detailed statement made to the Comptroller. All accounts dating from the organization of the Commission on May 31 to the close of business on December 31, 1911, were audited by the Baltimore Audit Company.

Respectfully submitted,

R. KEITH COMPTON, *Chairman.*
JAMES H. PRESTON, *Mayor, Ex-Officio.*
DOUGLAS H. THOMAS,
ALFRED E. BOOTH,
LEONIDAS G. TURNER,
SAMUEL C. ROWLAND.
Paving Commission.

CHARLES A. EDEL,
Secretary.

EIGHTY-THIRD ANNUAL REPORT

OF THE

Board of School Commissioners

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

AND FOR THE

SCHOLASTIC YEAR ENDING JUNE 30, 1912

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1913

BOARD OF SCHOOL COMMISSIONERS.

NAME.	ADDRESS.	TERM EXP.
THOMAS McCOSKER, *President*	2112 E. Pratt St	1916
ALBERT T. CHAMBERS	103 W. Franklin St	1914
RICHARD J. BIGGS	1412 Harlem Ave	1914
JAMES M. DELEVETT	623 Columbia Ave	1918
SIDNEY P. THANHOUSER	311 W. Baltimore St	1916
ALBERT L. FANKHANEL	South and Water Sts	1914
CLARENCE DEEMS	Park Ave. and Wilson St	1918
HENRY JOESTING, Jr.	201 W. Baltimore St	1916
HOWARD M. EMMONS	943 Calvert Building	1912

OFFICERS.

Francis A. Soper	Superintendent.
Charles J. Koch	First Assistant Superintendent.
Charles A. A. J. Miller	Second Assistant Superintendent.
Joseph C. Hands	Third Assistant Superintendent.
Robert W. Elliott	Fourth Assistant Superintendent.
Rowland Watts	Fifth Assistant Superintendent.
Andrew J. Pietsch	Sixth Assistant Superintendent.
John H. Roche	Secretary.
Frank N. Claridge	First Assistant Secretary.
Joshua R. Jolly	Second Assistant Secretary.
William H. Barton, Jr.	Clerk to Secretary.
Henry R. Davis	Supervisor of School Buildings.
Edwin Hebden	Statistician.
Lilian E. Thomas	Clerk, Superintendent's Office.
Bertie Baum	Clerk, Superintendent's Office.
Alice A. White	Clerk, Superintendent's Office.
Helen Hardy	Clerk, Superintendent's Office.
Miriam Graham	Clerk, Attendance Department.

THE PUBLIC SCHOOL SYSTEM
OF BALTIMORE.

The earliest legislation with reference to public schools in Baltimore was in 1826, when the General Assembly of Maryland passed an Act authorizing the Mayor and City Council to establish schools in Baltimore City, and to levy and collect such taxes as might be necessary for their support.

On March 8, 1828, the City Council adopted an ordinance creating the Board of Commissioners of Public Schools. By its provisions six commissioners were to be elected by the two Branches of the Council in convention, annually in the month of January. The Mayor of the city was president ex-officio of the Board of Commissioners. The Board was directed to divide the city into six school districts, and to establish one school in each district on the monitorial plan, each school to be divided into two departments—one for males and the other for females—and no child above ten years of age to be admitted. The tuition for each child was fixed at $1 per quarter; but the Board of Commissioners had the right to exempt from payment.

The Board on July 21, 1829, resolved to establish four schools, two in the western section and two in the eastern, and on the following 21st of September, the first public school in Baltimore City was opened on north Eutaw street in the basement of a church.

In 1830 an ordinance of the City Council empowered the Board of Commissioners to select a president and secretary from their own number. In the same year the first public school building was erected at the corner of Aisquith and Pitt (now Fayette) streets.

In 1831 a tax of twelve and a half cents on every hundred dollars' worth of property was levied for the support of the public schools. The schools were graded according to the capacity of the pupils, and there was no separation into primary and grammar. They were conducted on the monitorial plan until 1839, when a change was made in the mode of instruction and assistant teachers were appointed. The male schools were taught entirely by men until 1847, when female assistants were introduced and the future policy of the system with reference to the employment of females was established.

The male schools were intended for boys between the ages of seven and fourteen, while the female schools admitted boys and girls between the ages of four and seven, and girls between the ages of four and fourteen. The number of pupils during the first year was two hundred and sixty-nine, with three teachers.

As early as 1831 the Board of Commissioners discussed the subject of corporal punishment and decided that it was to be inflicted only in the rarest cases.

In 1831 needlework was taught two days in the week in each of the female schools, and double entry bookkeeping formed a subject of instruction for boys.

Evening schools were opened in 1839 for the benefit of those who could not attend during the day, and the experiment proved to be a great success.

The Male Central High School was opened on October 20, 1839, in a rented building on Courtland street, under the charge of Dr. Nathan C. Brooks, as principal, with forty-six pupils. In 1866 the name was changed to Baltimore City College, and the Board was authorized to confer diplomas on its graduates. At first the admissions to this school were confined entirely to those who had been pupils of the grammar schools and had passed a prescribed examination, but the rule was afterwards changed so as to admit any applicant who passed the required examination and had a good moral character. The work of

the pupils in the high school compared most favorably with that done in any of the best private schools of the city. The first annual commencement of the Male Central High School took place on November 27, 1851, with eight graduates.

In 1843 vocal music was introduced into the schools, and in 1846 drawing was made a branch of study in the high school.

Two female high schools were established in 1844—one in a rented building on north Paca street, the other at the northeast corner of Front and Fayette streets. The first annual commencement of these schools took place on October 25 and 28, 1853.

The Eastern and Western Normal Classes for Teachers were organized in September, 1851; the former in the Eastern Female High School, under the charge of Emily E. Jours, and the latter in the Western Female High School, under Eliza Adams. They were established for the benefit of teachers; and graduates of the female high schools, having passed the full term and desiring to adopt the profession of teaching, were allowed to remain one year in these classes to receive instruction in the theory and practice of teaching. All newly appointed teachers were required to attend one of these classes for six months.

The classes were discontinued in 1858, and the Central Normal Class was organized, to which male pupils were also admitted, and placed under the charge of a male principal, with male and female assistants.

As early as 1854 the Board of Commissioners recommended the establishment of a special school for idiots.

The City Council, in 1855, authorized the Board to establish a Floating School for the education of sailors, to be carried on under the joint direction of the Board of Trade of the city and the Board of Commissioners of Public Schools. In consequence of delay in obtaining a suitable vessel, the school was not opened until 1857, when the Board of Trade purchased the sloop-of-war Ontario, which was fitted up for the use of

this school. This is the first time in history that a public nautical school was established on board a vessel.

That the Board of Commissioners of Public Schools was desirous of furthering the cause of education in general is evidenced by an appeal to Congress for the establishment of a Bureau of Education, made by the Board in 1856.

In 1859 the Treasurer of the Board of Commissioners acted as superintendent, and on June 29, 1866, he was duly appointed Superintendent of Public Instruction.

The State Normal School was founded in 1867. In that same year the City Council passed an ordinance authorizing colored schools.

Systematic lectures in hygiene were given in the schools by Dr. Harvey L. Bird in 1869.

In 1874 the first German-English schools were opened. In these schools German was begun in the first year and continued throughout the course.

The question of introducing industrial education into the public schools occupied the attention of the Board in 1874.

The Public School Library was opened in 1875.

In 1884 the Baltimore Manual Training School was established for instruction in the mechanical arts. In 1893 the name was changed to that of Baltimore Polytechnic Institute.

In 1884 the tuition fee of $4 per year was abolished and the schools became entirely free schools.

In 1888 "the annex" was admitted to the city proper and the Mayor again became a member ex-officio of the Board of Commissioners of Public Schools.

Cooking schools were established as a part of the public school system in 1892; but, through the public-spirited cooperation of some women in South Baltimore, children had been afforded instruction in cooking before that date.

In 1897 the Board of Commissioners established civil service rules governing the appointment and promotion of teachers.

In 1898 the new Charter of Baltimore City was adopted.

The Educational Chapter of the Baltimore City Charter provides for a Board of School Commissioners, a Superintendent of Public Instruction, and one or more assistants, a Supervisor of School Buildings, and School Visitors, one or more for each school.

The Board of School Commissioners consists of nine members appointed by the Mayor for terms of six years, the terms of three of them expiring every two years. They serve without pay. They are chosen by the Mayor "from among those he deems most capable of promoting the interests of public education, by reason of their intelligence, character, education and business habits." In their appointment ecclesiastical and party ties are not regarded and the schools are thus entirely removed from the field of political and religious differences.

The Board's powers include the appointment of a Superintendent of Public Instruction and his assistants, and all other officers, clerks and employees, with the right to remove them at pleasure; to confirm or reject all nominations of teachers made to it by the Superintendent of Public Instruction from graded lists; to remove teachers on the recommendation of the Superintendent, after trial; to fix salaries of all officers and employees within the aggregate amount appropriated by ordinance of the Mayor and City Council; to advise the Inspector of Buildings with regard to plans for new school buildings and repairs or alterations of old ones; to purchase, through the Board of Awards, text-books, stationery, furniture, and all supplies needed by the schools.

It will be seen that the Board of School Commissioners has direct control over the expenditure of all money appropriated for school purposes, except that for school buildings and sites. Indirectly, it has control of the building fund also, since the Charter provides "that no plan shall be finally adopted without the concurrence of said Board."

The Superintendent of Public Instruction is the executive officer of the Board. His duties, as defined by the Charter, include the examination of teachers and reporting to the Board graded lists of those whom he and his assistants deem qualified for appointment. He is to supervise the work of teachers and advise the Board in respect to the course of studies, text-books, and methods of instruction. With the aid of the Supervisor of School Buildings, he is to ascertain the sanitary condition of every building and report what repairs and improvements are necessary.

Under the rules of the Board, the Superintendent is responsible for nomination from eligible lists of members of the teaching staff, and for the assignment and transfer of teachers. He is given large powers and held responsible for their proper exercise. In the work of supervision he is aided by six assistant superintendents, and by principals, one for each school.

The public schools are classified as kindergartens, enrolling children who are not quite ready for regular grade work; elementary schools, covering eight years' work; and secondary schools, providing four years' work. Pupils are classified according to working power, so that they may advance through the course at their normal rate of speed. Pupils may complete the elementary course in seven years, and even in six years, and the secondary school work in three or three and a half years; others require the average time; and still others more than the average time.

In the schools known as English-German schools (nine in number), German may be begun in the first year and continued throughout the course.

At the end of the sixth school year, at about the age of twelve years, pupils who have done well up to that point, may take up, in centrally located classes, the study of Latin and a modern language in addition to their other studies. In addition to the regular English work of the seventh and eighth grades, these classes complete first year English of high school

grade. The credits thus earned by pupils in the last two years of the elementary school are made a part of their high school record, and count toward the high school diploma.

Ungraded classes are maintained for pupils who, temporarily, cannot work to advantage in regular classes. No stigma attaches to enrollment in ungraded classes. The instruction is carried on by especially skillful teachers, who receive a moderate addition to the regular salary for their services.

Evening schools are maintained during six months of the year with sessions three evenings each week.

The School Attendance Department employs twelve Attendance Officers, who work under the direction of the Second Assistant Superintendent. A Parental School is maintained for the continuous care of habitual truants committed to it by the Juvenile Court.

Sewing is taught by special teachers to girls in grades three to eight, inclusive, except the seventh. Drawing is taught in every grade, both in the elementary and high schools. In the elementary grades the instruction in drawing is given chiefly by the regular teachers under the direction of a supervisor and several assistants. Cooking is taught to girls of the sixth and seventh grades in nearly all of the schools, and in some schools to lower grades. It is the purpose of the Board to extend this feature of school work to include the eighth grade. Elementary manual training is carried on in connection with drawing in the lower and intermediate grades. Shops are provided at central points, in which boys of the sixth, seventh and eighth grades work at the bench for an hour and a half each week, while the girls are in the cooking schools or engaged in sewing. The newer buildings have manual training rooms.

Music is taught throughout the entire course, from the first grade to the twelfth. In the elementary grades the instruction is given by the regular teachers under the direction of a supervisor of music and three assistants.

Physical training is conducted in all the elementary schoolrooms by the regular teachers under the guidance of the supervisor and his assistants. The supervisor personally instructs classes in the teachers' training schools. He also exercises general supervision over the gymnastic work in the high schools.

Five high schools are maintained at public expense. The Baltimore City College, for boys, and the Eastern and Western High Schools, for girls, have almost identical programs of study. They aim to furnish pupils whose school life will end with the secondary school, a sound fundamental education; to give those who mean to devote themselves to teaching in the elementary schools the proper general training preparatory to the special course in the Teachers' Training School; to afford those who seek it special preparation for entering college. To attain these ends, carefully planned courses of study are offered in English literature and composition, in other languages and literatures, in mathematics, in science, in history, in commercial branches, in drawing, and in physical culture.

The Baltimore Polytechnic Institute belongs to that class of institutions known elsewhere as manual training high schools. It was the second institution of its kind in the United States to be supported at public expense. Besides giving to students a sound general education, it aims to give boys that helpful and highly valuable manual training which broadens education and conduces to dexterity, contrivance and invention. To this end, the time usually devoted to Greek and Latin is in this school employed, during two years of the course, in carpentry, sheet metal work and light forge exercises. These exercises cover what is known as manual training, and are given with special reference to their educational value. The school undertakes to give pupils in the third and fourth years such studies in mathematics, physics and chemistry, and such mechanical exercises in applied manual training, as will fit them for teaching in manual training schoools, for immediate

and remunerative employment in the drafting room, or for engagement in the wide field of electrical and mechanical engineering, or for entrance to advanced standing into an institution of technology, should a higher technical education be desired.

The Colored High School admits to its classes both boys and girls. The courses of study followed are similar to those offered in the other secondary schools, differing chiefly in the wider opportunity given to girls to choose industrial work, such as cooking, dressmaking and millinery. The courses in manual training for boys are similar to those given in the Baltimore Polytechnic Institute.

The training of teachers is without question the most important single feature of the school system. Two training schools are maintained, one for white teachers and one for colored teachers. From seventy to eighty new teachers are needed in the elementary schools each year to provide for the annually increasing enrollment of children, and for withdrawals from the service. The rules of the Board fix two years' training after high school graduation as a condition of eligibility to appointment.

The first year of the training school course is devoted to the study of the history of education, psychology, general and special method; and to observation of good teaching, with some closely supervised practice in actual teaching. The second year is devoted largely to actual teaching, though the work in theory is continued. In the second year of the course the students receive compensation for the actual service rendered in teaching. They take charge of schoolrooms and work under the immediate direction of practice teachers. Each practice teacher is responsible for the progress of classes of children in two schoolrooms, and thus has under her immediate direction two normal school pupils. A Supervisor of Practice, aided by several assistants, visits all rooms in which training school pupils are teaching and aids both practice

teacher and pupil teacher by her advice. The supervisor continues to render assistance to newly trained teachers while they serve as substitutes before appointment as regular teachers.

Students who have completed the two-year training school course are admitted to the professional examination, which covers the subjects taught at the training school.

The names of the successful candidates are placed on lists in the order of rating received at the examination. This list is known as List II. Persons in List II are assigned as substitutes and are under the supervision of the supervisors of practice. When recommended by the supervisors, the candidates are placed in vacancies in the service and their names are enrolled on List I. All candidates serve one year as substitutes of Class I, and they receive an annual salary. At the expiration of the year the candidates receive practice marks which, when averaged with their respective marks in the professional examination, give the ratings that determine their standing on the eligible list. All nominations for election as teachers must be made from this graded list, and in the order of standing.

REPORT OF THE

PRESIDENT OF THE BOARD OF SCHOOL COMMISSIONERS.

OFFICE OF THE BOARD OF SCHOOL COMMISSIONERS,

BALTIMORE, January 2, 1912.

HONORABLE JAMES H. PRESTON,
Mayor of the City of Baltimore,

SIR: The Board of School Commissioners respectfully submits the Eighty-third Annual Report, showing the condition of the public schools of the City of Baltimore during the year ending December 31, 1911.

SCHOOL ACCOMMODATIONS.

The following is a summary, showing the present number of buildings owned and occupied for school purposes and the buildings now in process of construction:

SCHOOL BUILDINGS OCCUPIED.

Schoolhouses owned by the city	108
Dwellings owned by the city	3
Portable frame buildings owned by the city	34
Buildings or parts of buildings rented by the city	18
Total number of buildings occupied	163

New Buildings Completed in 1911.

School No. 2, Stiles and Gough streets—Twenty-four classroom building.

School No. 51, Windermere avenue, Waverly—Twenty-four classroom building.

School No. 60, Francis and Clifton streets—Addition of eight classrooms.

School No. 76, Hull and Clement streets—Addition of four classrooms and manual training room.

New Buildings Now Under Construction.

School No. 70, William street and Warren avenue—Twenty-four classroom building; should be completed by September 1, 1912.

School No. 64, Forest Park—A two-story addition of ten classrooms; should be completed by April 1, 1912.

School No. 63, Ninth street and Westwood avenue, Walbrook—A two-story addition of eight classrooms, with assembly hall, manual training room and cookery in basement. Should be completed by April 1, 1912.

Baltimore Polytechnic Institute Annex, North avenue—Should be completed by September 1, 1912.

Drawings of New Buildings Approved by the Board of School Commissioners.

School No. 22, Scott and Hamburg streets—Three-story, twenty-four classrooms, with assembly hall, manual training room and cookery in basement.

School No. 6, Ann street, near Canton avenue—Two-story, sixteen classrooms, with assembly hall, recreation rooms, shower-baths, etc., in basement, and a large open-air room on roof.

Rented Buildings Vacated.

School No. 51 Branch, Gilmor lane, near York road.
School No. 76 Branch, Hull street, near Fort avenue.
School No. 112 Branch, Pennsylvania and Fremont avenues.
A total saving of $1,035 in yearly rental.
No additional buildings were rented in 1911.

Portable School Buildings.

One transferred from School lot No. 67, on Old Frederick road and Fairview avenue, to Parental School lot, Old Frederick road, opposite Loudon avenue.

Additional Improvements Authorized in 1911.

The following is a summary of additional improvements authorized and for which appropriations are available:

School No. 27—Lot and building.
School No. 83—Addition.
School No. 37—Addition.
School No. 99—Addition.
School No. 111—Lot and building.
School No. 61—Lot and building.
School No. 67—Addition.
School No. 34—Addition.

Appropriations Available for 1912.

School No. 13—Addition.
School No. 22—Additional appropriation.
School No. 27—Additional appropriation.
School No. 67—Additional appropriation.
School No. 83—Additional appropriation.
School No. 99—Additional appropriation.
School No. 93—For purchase of No. 1126 East Baltimore street.
For school in West Arlington.

Teachers' Training School.

One of the most important questions to be considered in connection with a system of education is that of providing a competent body of teachers. Recognizing this fact, the State of Maryland, in 1865, authorized the establishment of a training school for teachers and, in 1866, the State Normal School was opened in Baltimore City. This institution has been with us for more than forty years, and the greater part of the expenses attending it are borne by our taxpayers, yet our city schools have received comparatively few teachers from among its graduates.

As the State has under consideration the advisability of changing the location of the school, which will carry with it the cost of erecting new buildings, the Board, deeming it the proper time, appointed a committee to confer with the State authorities as to the feasibility of designing and equipping the new school for the work of training teachers for the public schools of the entire State.

Group Principals.

In the judgment of the Board, better results in school management and supervision would be obtained by discarding the present group principal system and replacing it with one more satisfactory and effective.

This matter is now in charge of the Committee on Rules and Board of Superintendents for study and recommendations; and the Board is awaiting their report before taking final action.

Increase of Salaries of Elementary School Teachers.

The much deserved, though long delayed, increase of salary of grade teachers will soon go into effect. Through the kind offices of the Board of Estimates and the Mayor and City Council, provision was made for an appropriation of sixty thousand dollars, to be placed at the disposal of the Board of

School Commissioners for the increase of salaries of teachers in the elementary schools. The Board has referred the matter to its Committee on Rules, with instructions to formulate a plan for an equitable distribution of the increase and at the same time to provide for the removal of the many irregularities which have from time to time found place upon the salary schedule.

Distribution of Books and Supplies.

The attention of the Board has been called to serious defects in the methods employed in the storage and distribution of books and other supplies for the school service.

A preliminary report of a committee appointed to inquire into the matter tends to support the complaints. The committee is now making a thorough investigation and, at the conclusion of its work, will submit a plan for such improvement in that direction as may be found necessary.

Night Schools.

There was a marked increase in attendance at the night schools during the year 1911-12, in comparison with that of the preceding year. The records give the number of pupils belonging in 1910 as 2,874, and in 1911 as 3,914, showing an increase of 1,040. To provide for this increase the Board found it necessary to open two more schools; one at School No. 1, Fayette and Greene streets, and the other at School No. 51, York road, near Merryman's lane; and to employ twenty-five additional teachers for the night school service.

Through the efforts of our First Assistant Superintendent, who has charge of the night schools, a new feature has been added to that branch of the system by the introduction of a course of lectures to be delivered at night, and so arranged as not to interfere with the regular studies. The subject of the lectures will be both entertaining and instructive and will no doubt increase the usefulness of our night schools.

Summer Schools.

On March 8, 1911, the Board of School Commissioners approved the report of the Committee on Rules, based upon a recommendation of the Board of Superintendents, to establish a summer session in certain elementary schools for non-promoted and retarded children.

Summer sessions were held in Schools Nos. 75, 92, 93 and 103. The following statistics will show the work of the summer schools, in session from July 10 to August 31, 1911:

Gross roll	1,007
Average number belonging	797
Average attendance	691
Number of teachers	23
Average class attendance per teacher	30
Number belonging August 31, 1911	698
Number recommended for higher work	442

Statistics.

School Attendance.

	1910	1911
Average attendance	55,103	54,947
Average number belonging	61,734	61,219
Total roll	79,838	79,757

School Attendance Department.

Number of cases investigated	48,892
Number of absentees	37,632
Number of truants	2,628
Number of non-attendants put into school	237
Number of special cases	7,395
Number of visits to homes	47,087
Number of visits to schools	7,709
Number refused permits to work	877
Number of magistrate cases	43
Number of prosecutions before Juvenile Court	75
Number of prosecutions before Criminal Court	3
Number committed to Parental School	54

Number of pupils enrolled during year, high schools	4,654	
Number of pupils enrolled during year, elementary schools	75,103	
Total number enrolled in day schools during year		79,757

Average attendance for year ending December 31, 1911, high schools	4,155
Average attendance for year ending December 31, 1911, elementary schools	50,792
Total average attendance	54,947

Average number belonging for the year, high schools	4,411
Average number belonging for the year, elementary schools	56,808
Total average belonging	61,219

Number of pupils attending night schools, December 31, 1911		4,226
Number of high schools	5	
Number of elementary schools	103	
Total number of schools		108

Number of teachers in high schools, including principals		188
Number of teachers in elementary schools, excluding principals but including assigned substitutes		1,529
Number of supervising principals	19	
Supervisors and special teachers:		
Music	4	
Drawing	9	
Sewing	30	
Cookery	14	
Manual training	14	
Physical training	3	
		93
Total number of teachers		1,810

Average annual salary of teachers during the year	$759 39
Average per capita cost of education in all the day schools based on the number of pupils belonging December 31, 1911	25 07
Average per capita cost in night schools, based on the attendance of December 31, 1911	5 71
Average cost per pupil in the secondary schools	68 14
Average cost per pupil in the elementary schools	21 85
Average cost per pupil in the Baltimore City College	80 62
Average cost per pupil in the Eastern High School	57 32
Average cost per pupil in the Western High School	44 93
Average cost per pupil in the Polytechnic Institute	89 97
Average cost per pupil in the Colored High School	68 07

The amount appropriated by the Mayor and City Council for current expenses for 1911 was	$1,742,184 00
The amount received by exchange and sale of old books	1,029 74
The amount received from the State for books was	56,248 54
Balance from 1910 for high school commercial courses	5,526 95
From the State for high school commercial courses	10,000 00
The amount to credit of intestate estates, January 1, 1911, was	4,849 27
From intestate estates	9,448 29
Total for current expenses	$1,829,286 79
Amount expended	1,766,704 66
Amount unexpended	$62,582 13

Respectfully submitted,

THOMAS McCOSKER,
President, Board of School Commissioners.

SUPPLEMENTAL REPORT.

BALTIMORE, June 30, 1912.

HONORABLE JAMES H. PRESTON,
Mayor of the City of Baltimore.

SIR: The Board of School Commissioners respectfully submit the following report of the condition of the public schools during the half year extending from January 1 to June 30, 1912, including both dates.

In order to assist in bringing about uniformity in school reports, the Board of School Commissioners, at its meeting held April 12, 1911, took the following action:

"Ordered, that the Board approve the recommendation of the Superintendent that, in addition to the educational statistics covering the calendar year ending December 31, 1910, the report include the educational statistics from January 1 to June 30, 1911, inclusive; and that succeeding statistical reports begin September 1 and end June 30."

The last annual report was for the year ending December 31, 1911, and this additional statement is necessary in order to conform to the requirements of the Board and to secure uniformity in future reports.

NEW BUILDINGS COMPLETED FROM JANUARY 1 TO JUNE 30, 1912.

School No. 13, Patterson Park avenue and McElderry streets—Addition of four classrooms.

School No. 63, Ninth and Northwest streets—Addition of eight classrooms.

School No. 64, Liberty road and Maine avenue, Forest Park—Addition of ten classrooms.

Changes in Department of Supervision.

As outlined in the regular report for the calendar year 1911, two important changes have been effected in the supervisory department: the position of group principal has been abolished, and the Board of Superintendents reorganized.

Under the new regulations the Superintendent of Public Instruction directs the entire school system; the Second Assistant Superintendent has supervision of the secondary schools, and the First Assistant Superintendent is in charge of the elementary schools.

The elementary schools are divided into four districts to each of which one of the assistant superintendents is assigned.

The essential difference between the present system and the group system lies in the fact that every school is now in charge of a responsible head, or principal.

Salaries of Teachers.

The first instalment of the increase in salaries of elementary teachers, as per the plan adopted by the Board of School Commissioners and approved by the Board of Estimates, became effective January 1, 1912.

Statistics.

For the Scholastic Year 1911-12.

Average attendance, day schools		55,496
Average number belonging, day schools		61,781
Total roll, day schools		72,105
Number enrolled during year, secondary schools	5,026	
Number enrolled during the year, elementary schools	67,079	
Total number enrolled in day schools during year		72,105
Number enrolled in night schools during year		8,277
Aggregate number of all pupils attending school during year		80,382

Average attendance for the year ending June 30, 1912, secondary schools		4,189
Average attendance for the year, elementary schools		51,307
Total average attendance		55,496
Average number belonging for the year, secondary schools		4,481
Average number belonging, elementary schools		57,300
Total average belonging		61,781
Number of pupils attending night schools March 31, 1912		2,580
Number of secondary schools		5
Number of elementary schools		103
Total number of schools, including branches and annexes		108
Number of teachers in secondary schools, including principals		192
Number of teachers, elementary, including principals		1,566
Number of superintendents	1	
Number of assistant superintendents	6	
Supervisors and special teachers:		
Practice	7	
Music	4	
Drawing	8	
Sewing	32	
Cookery	17	
Manual training	17	
Physical training	3	
		95
Total number of teachers		1,853
Average annual salary of teachers during year		$774 29
Average per capita cost of education in all of the schools, based on the number of pupils belonging June 30, 1912		27 53
Average per capita cost in night schools, based on the attendance of March 31, 1912		6 31
Average cost per pupil in the secondary schools		73 86
Average cost per pupil in the elementary schools		23 50
Average cost per pupil in the Baltimore City College		93 02
Average cost per pupil in the Eastern High School		63 68
Average cost per pupil in the Western High School		52 87
Average cost per pupil in the Polytechnic Institute		97 63
Average cost per pupil in the Colored High School		66 44

Amount to credit, July 1, 1911		$755,039 31
Amount appropriated by the Mayor and City Council for the expenses of the schools for the fiscal year 1912		1,806,219 00
Amount received from the State for free text-books		55,844 75
Amount received from exchange of old books		846 60
Amount received from the State for State High School Fund		10,000 00
Amount received from intestate estates		9,627 57
Total		$2,637,577 23
Amount unexpended December 31, 1911, paid into General Fund, City Treasury	$32,764 54	
Amount expended	1,825,213 53	
		1,857,978 07
Amount unexpended, carried forward to 1912-13		$779,599 16

Respectfully submitted,

THOMAS MCCOSKER,
President of the Board of School Commissioners.

In Memoriam.

The following named teachers died during the year 1911 and the scholastic year 1911-12:

1911.

February 23—Annie E. Willson.

March 8—Mary W. Wallace.

April 12—Genevieve R. Quinn.

April 12—Mary McKay.

August 31—Sue M. Lohrfinck.

September 13—Eliza Adams.

October 11—Bessie Meushaw.

October 11—Margaret K. Burnett.

November 8—John H. Bramble.

December 13—Annie D. Lietaud.

1912.

January 24—Isabel F. Bowen.

March 27—Katherine Hobach.

March 27—Laura A. Edwards.

April 10—Sarah A. McGinnis.

SECRETARY'S STATEMENT

OF THE

ACCOUNTS OF THE PUBLIC SCHOOLS FOR 1911.

The amount appropriated by the Mayor and City Council for the current expenses of the schools for 1911 was	$1,742,184 00
Amount received from the exchange and sale of books	1,029 74
Amount from State for free text books	56,248 54
Amount from State for High School commercial courses	10,000 00
Amount brought forward from 1910	5,526 95
Amount to credit of Intestate Estates, January 1, 1911	4 849 27
Amount from Intestate Estates during 1911	9,448 29
Total	$1,829,286 79
Amount expended	1,766,704 66
Amount unexpended	$62,582 13

Itemized as follows:

OFFICE SALARIES.

Amount appropriated	$9,200 00
Amount expended	9,195 48
Amount unexpended—paid into General Fund, City Treasury	$4 52

OFFICE EXPENSES.

Amount appropriated	$1,500 00
Amount expended	1,500 00
Amount unexpended	

DAY SCHOOL SALARIES.

Amount appropriated	$1,503,113 00
Amount expended	1,476,132 99
Amount unexpended—paid into General Fund, City Treasury	$26,980 01

DAY SCHOOL EXPENSES.

Amount appropriated	$162,350 00
Amount expended	162,350 00
Amount unexpended	

NIGHT SCHOOL SALARIES.

Amount appropriated	$21,321 00
Amount expended	20,757 10
Amount unexpended—paid into General Fund, City Treasury	$563 90

NIGHT SCHOOL EXPENSES.

Amount appropriated	$4,500 00
Amount expended	3,453 12
Amount unexpended—paid into General Fund, City Treasury	$1,046 88

FREE TEXT-BOOKS.

Amount received from the exchange and sale of Text Books	$1,029 74
Amount received from the State	56,248 54
Total	$57,278 28
Amount expended	56,601 94
Amount unexpended, carried forward to 1912	$676 34

EQUIPPING NEW BUILDINGS.

Amount brought forward from 1910	10,284 72
Amount appropriated	$30,200 00
Total	$40,484 72
Amount expended	29,445 23
Amount unexpended, carried forward to 1912	$11,039 49

INTESTATE ESTATES.

Amount to credit, January 1, 1911	$4,849 27
Amount received during 1911	9,448 29
Total	$14,297 56
Amount expended	4,366 51
Amount unexpended, carried forward to 1912	$9,931 05

HIGH SCHOOL COMMERCIAL COURSES.

Amount brought forward from 1910	$5,526 95
High School Commercial Courses, appropriated by State	10,000 00
Total	$15,526 95
Amount expended	7,356 24
Amount unexpended—carried forward to 1912	$8,170 71

PARENTAL SCHOOL.

Amount appropriated	$10,000 00
Amount expended	5,830 77
Amount unexpended—paid into General Fund, City Treasury	$4,169 23

Average annual salary of teachers during the year $759 39

The per capita cost, as here given, is based on the expenditure and the number of pupils belonging, including temporary withdrawals, December 31, 1911.

PER CAPITA COST.

For all the schools	$25 07
" " " Secondary Schools	68 14
" " " Elementary Schools	21 85
" " " Night Schools	5 71

Itemized:

For Baltimore City College	80 62
" Eastern High School	57 32
" Western High School	44 93
" Baltimore Polytechnic Institute	89 97
" Colored High and Training School	68 07
" Group A	18 54
" " B	16 25
" " C	20 21
" " D	21 25
" " E	16 53
" " F	21 82
" " I	22 19
" " J	19 21

For Group K		$22 66
" " M		24 88
" " N		21 08
" " O		20 41
" " P		20 62
" " Q		20 35
" " R		23 43
" " U		26 16
" " V		20 99
" " W		24 58
" " X		17 35
" " Y		16 16
" " Z		15 78

The following tables show:

Table A. Itemized expenditures, etc.
Table B. The location of schools, cost, etc.
Table C. Rented buildings, locations, etc.

JOHN H. ROCHE,
Secretary.

TABLE A.

ITEMIZED EXPENDITURES OF THE SEVERAL SCHOOLS AND GROUPS FOR THE FISCAL YEAR—JANUARY 1 TO DECEMBER 31, 1911.

NAMES.	DISTRIBUTION OF CHARGES.									TOTALS.
	Salaries.	Rents.	Classroom Supplies.	Fuel.	Incidentals.	Furniture.	Repairs.	New Equipment.	Equipping New Buildings.	Text Books.	
Office	$9,195 48		$437 18	$168 77	$824 86	$12 50	$56 69				$10,695 48
General Expense	55,214 75		1,819 72	1,213 13	12,413 26	10 50	2,289 68			$1,949 76	74,910 80
Drawing	7,908 23										7,908 23
Sewing	17,709 54										17,709 54
Physical Culture	2,941 28										2,941 28
Training School (White)	9,903 53		343 63		23 61	65 85	60 66	$233 60		1,282 37	11,913 25
Training School (Colored)	7,733 39		45 55			100 00				541 00	8,419 94
Baltimore City College	62,417 00	$1,222 50	3,063 78	939 48	1,378 87	377 34	862 28	611 73		2,197 67	73,070 65
Eastern High School	40,928 45		1,595 93	1,156 00	1,310 27	1,063 78	578 92	103 22		1,898 16	48,934 73
Western High School	47,135 99		1,822 00	1,019 43	2,264 38	35 25	187 40		$12,801 84	2,016 86	67,283 15
Baltimore Polytechnic Institute	71,037 19		5,336 16	1,036 37	2,159 61	38 85	320 15	522 07	1,019 60	4,781 01	86,251 01
Colored High School	31,491 39	1,110 00	2,776 47	715 72	704 28	243 75	584 88	141 75		1,488 82	39,257 06
Group A	55,048 06		1,674 52	1,748 50	786 74	98 15	659 63	20 41		1,008 79	61,044 80
B	44,030 54		1,065 22	1,496 06	536 11	161 84	399 58	56 06	7,128 71	1,795 93	56,670 05
C	55,320 47	56 25	1,561 11	2,642 68	529 22	865 86	719 87	326 80		1,669 71	63,691 97
D	71,100 45	960 00	2,430 95	2,453 26	508 39	125 75	759 40	108 50		3,395 85	81,842 55
E	51,706 10		1,695 29	1,991 97	739 19	559 30	244 96	273 00		1,909 47	59,119 28
F	52,868 53	1,220 00	1,822 49	2,208 81	554 52	44 50	193 30	278 40		1,547 00	60,737 55
I	57,579 98		1,399 48	2,364 71	509 35	461 00	196 58	41 30		1,726 15	64,278 55
J	62,951 92		1,464 24	1,779 77	433 42		50 65	130 32		2,770 42	69,580 74
K	53,002 91	660 00	1,594 32	2,375 47	468 08	157 02	295 67		6,944 27	1,563 28	67,061 02
M	51,367 94		1,941 12	2,282 44	712 47	105 00	622 29	76 02		1,552 21	58,659 49
N	66,961 52		1,916 44	2,566 93	549 31	91 25	257 25	118 99		2,647 20	75,108 89
O	36,927 34		1,531 51	1,586 02	438 23	21 72	179 34	247 44	355 82	2,058 56	43,345 98
P	47,018 76		1,552 91	1,388 28	489 33	75 17	289 45	560 36		1,728 82	53,103 08
Q	50,479 39		1,492 58	2,853 41	683 98	361 60	234 37			2,629 74	58,735 07
R	64,537 05		1,448 96	2,630 08	567 47	577 44	457 60			1,577 37	71,795 97
U	52,042 20		1,445 26	3,942 92	715 12	362 77	759 49	244 89		2,819 42	62,332 07
V	53,854 36		1,974 17	1,731 57	500 40	1,318 81	737 69	6 61		2,558 60	62,682 21
W	42,529 76	1,100 00	1,261 92	1,996 69	588 94	80 51	133 26	112 39	1,194 99	1,270 80	50,209 26
X	51,019 21	1,130 00	1,889 69	2,040 99	436 42		558 21	51 13		2,456 56	59,582 21
Y	46,600 49	1,075 00	2,436 02	1,526 61	787 07	501 78	318 87	10 78		2,431 89	55,088 51
Z	41,341 21	611 00	2,000 28	1,284 49	446 79	27 00	323 10	264 18		2,540 67	48,838 72
Night Schools	20,757 10		1,199 12		1,605 10		15 20	385 67		580 03	24,542 82
Parental School	4,139 17	600 00		204 91	2,002 14		41 19			49 64	7,037 05
Attendance Officers	8,977 49										8,977 49
Summer Schools	3,383 00										3,383 00
Grand Total	$1,509,161 17	$9,744 75	$54,038 02	$51,345 47	$36,666 93	$7,944 29	$13,387 61	$4,925 62	$29,445 23	$00,444 30	$1,777,103 45
For current expenses deduct the amount for Equipping New Buildings, New Equipment and Furniture											42,315 14
Current expenses											$1,734,788 31

SCHOOLS.	LOCATIONS.	Erected.	Class Rooms	Size of Lot.	Size of Building.	Ground Rent.	Cost. Lot.	Cost. Building.
Balto. City College....	Howard st., opp. Centre.....	1896	28	208 6 x 245	24,155 sq. ft.	$2,100 00 1,500 00	$66,666 66	$203,639 00
Eastern High School.	Broadway and North ave.....	1904	32	189 x 200	186.8 x 194.6	....	31,679 37	365,506 54
Western High School	McCulloh st. and Lafayette ave.	1895	25			.....	.....	.....
	Old lot and building..... .. .			230 x 97.9	Entire bldg.	....	30,666 66	132,000 00
	Administration building and lot	1895		230 x 140.8	320 x 80	....	40,000 00	.....
	New lots and building..... ...	1910		100 x 90		.....	18,650 00	158,637 36
Polytechnic Institute	Courtland, nr. Saratoga (old)....	1868	29	182.3 x 90	9,892 sq. ft.	220 00	34,237 75	43,000 00
	Courtland, nr. Saratoga (new)...	1890						
Annex	North ave.	1910	16	726 x 303	.....	.....	345,932 60	for lot & bldgs.
Colored High School	Penn. ave. and Dolphin st.....	1893	26	80 x 144.6	56.4 x 138	....	15,000 00	26,000 00
C. H. School Shops...		1901		110 x 44.6		....	4,125 00	.....
School No. 1.....	N. E. cor. Fayette and Greene sts.	1880	18	97 x 102	96 x 60 22 x 30	204 00 150 00	9,000 00	25,000 00
" " 2	Gough and Stiles sts. (new).....	1911	24	220 x 92	80 x 151	.....	24,252 17	106,221 97
" " 3.....	Eastern and Montford aves.....	1880	16	100 x 150	52 x 136	350 00	.....	24,000 00
" " 4.....	Hanover and Lee sts.....	1896	16	50 x 104	Avg. 90 x 60	135 00	3,500 00	35,000 00
	Hanover and Lee sts. (addition)	1910		128 x 76 25 x 81			18,000 00 6,689 50	....
" " 5...	Broadway and Ashland ave.....	1876	16	120 x 120	56 x 120	600 00	....	....
" " 6.....	Ann st., nr. Canton ave. (new).....	1912	16	144 x 183	83.11 x 178.5	90 00	23,996 16	117,475 00
" " 7.....	Mullikin st., nr. Aisquith.....	1864	11	75.9 x 100	45 x 64	540 91	2,651 50	5,000 00
" " 8	Caroline st., nr. Lombard..... .	1888	14	105.5 x 150 (nearly)	90 x 58	114 00	6,200 00	18,000 00
" " 9	S. W. Cor. Fayette and Greene sts	1875	18	77.6 x 170 (nearly)	65 x 128	1,094 75	....	27,000 00

SCHOOLS.	LOCATIONS.	Erected.	Class Rooms.	Size of Lot.	Size of Building.	Ground Rent.	Cost. Lot.	Cost. Building.
School No. 10	Hollins st., near Schroeder. Addition, lot, new building.	1855 1905	12	143.8 x 134	75 x 132	$200 00	$18,817 71	$75,099 02
" " 11	Gilmor and Mosher sts.	1886 1889	20	126.3 x 166.10	60 x 108 57.9 x 105		12,616 66	42,000 00
" " 12	Barre and Warner sts	1870	14	67 x 120	80 x 50	268 00		16,000 00
" " 13	Pat'rs'n Pk. av. & McElderry st.	1890	12	155 x 106	55 x 105		10,000 00	21,000 00
	Addition	1912	8		39.6 x 72.6			21,944 65
" " 14	Linden ave. and Wilson st.	1882	14	150 x 105	56 x 120		14,000 00	21,000 00
" " 15	Saratoga st. and Carrollton ave.	1872	12	100 x 150	55 x 96	700 00		24,000 00
	Addition	1906						
" " 16	Harford and Ashland aves.	1876	12	105 x 180	56 x 113	790 00		17,000 00
" " 17	Light and Poultney sts	1875	10	62.1 x 122	50 x 76	217 00	800 00	16,000 00
" " 19	Hollins st., nr. Monroe	1875	8	111 x 129.6	54 x 84		17,250 00	18,000 00
" " 20	Eden and Preston sts.	1868	29	100 x 207	59 x 174	512 00	7,333 33	43,000 00
" " 21	Pennsylvania ave. and Robert st.	1869	8	80 x 156	50 x 79		10,983 33	16,000 00
" " 22	Ramsay and Scott sts	1912	24	163 x 200	83.6 x 179.2	177 50		152,874 00
" " 23	Gough and Wolfe sts	1866	13	75 x 110	57 x 104	150 00	2,983 33	19,000 00
" " 24	Fait ave. and Patuxent st	1890	12	150 x 100	70 x 86		7,500 00	21,000 00
" " 25	Bond st., nr. Canton ave	1867	16	110 x 129.6	42 x 93 50 x 66		14,962 50	25,000 00
" " 26	Orleans and Bond sts	1874	10	84 x 75	56 x 65	126 00	4,500 00	15,000 00
" " 27	Fayette and Chester sts.	1912	24	115 x 182.8	81.4 x 159.4	274 50		106,196 00
" " 28	Battery ave. and Clement st	1869	11	75 x 82	46 x 82	270 00	1,000 00	7,500 00
" " 29	Sharp st., nr. West	1886	12	114 x 155	55 x 103		9,500 00	21,600 00
" " 30	Hollins st., nr. Monroe	1875	16	97.6 x 129.6	54 x 112	700 00	12,500 00	16,000 00
" " 31	Schroeder and Pierce sts.	1890	12	60 x 123.10	58 x 96	228 00	2,500 00	21,000 00

"	"	32	Guilford ave. and Lanvale st	1890	12	80 x 154	67 x 54 47 x 41			11,800 00	21,000 00
"	"	33	Light and Clement sts	1890	12	100 x 100	67 x 53 48 x 41		01	10,000 00	21,000 00
"	"	34	Carey st. and Columbia ave	1896	12	100 x 160	58 x 120			6,416 66	30,000 00
"	"	35	Hanover and Winder sts	1895	12	132 x 198	50 x 114			6,700 00	28,297 00
"	"	37	Biddle st. and Patterson Park ave.	1895	12	150 x 165	65 x 89			8,500 00	25,000 00
"	"	38	Chesapeake and Hudson sts	1853	4	80 x 100	32 x 60			(Donated)	5,000 00
"	"	39	Carrollton and Riggs aves	1888	12	97 x 157	52 x 97			7,000 00	19,000 00
"	"	40	Aisquith and Orleans sts	1868	19	180 x 39 210 x 102	90 x 56 86 x 50		615 00	17,651 00	80,000 00
"	"	42	Broadway and Bank st	1888	20	100 x 141	101 x 39 52 x 87		44 44	3,333 33	30,000 00
"	"	43	High st., nr. Fayette	1875	24	80 x 167	50 x 145		900 00		28,800 00
"	"	43 Br.	124 and 126 North High st	1903	3	30 x 136.6				5,000 00	Including bldgs
"	"	44	Sharp st., nr. Montgomery	1869	14	100 x 155	54 x 104		600 00		18,000 00
"	"	45	Greenmount ave. and Eager st	1872	12	Average 77.8 x 152.8	56 x 100		600 00		17,000 00
"	"	47	Eastern ave and Patuxent st	1897	23	144 x 300	63 x 65 80 x 81			16,683 33	50,000 00
"	"	48	Hollins and Monroe sts	1875	12	127.6 x 129.6	Average 51 x 110		700 00		21,000 00
"	"	49	1205 Cathedral st., with Gymnasium on Maryland avenue	Bought 1908	13	Average 60 x 227.6	Average 60 x 70 36 x 50			Lot and Bldgs.	60,000 00
"	"	50	Gorsuch av. & Tyler st., Homest'd.	1889	4	42 x 90	27 x 52 11 x 20			1,000 00	4,500 00
"	"	51	York road, Waverly	1889	16	100 x 200	Average 134 x 45			4,000 00	14,500 00
			New lots and building	1911	24	300 x 240 236 x 242	75 x 164			13,371 18	150,366 00
"	"	52	Oak and Twenty-fourth sts	1889	8	60 x 160	50 x 60			4,000 00	10,000 00
"	"	53	St. Paul and Twenty-sixth sts	1897	16	100 x 123	123 x 64			10,000 00	60,000 00
"	"	53	Addition lot			100 x 123	37 x 35			11,666 66	

SCHOOLS.	LOCATIONS.	Erected.	Class Rooms	Size of Lot.	Size of Building.	Ground Rent.	Cost. Lot.	Cost. Building.
School No. 54	Huntingdon ave., nr. Charles st..	1890	12	100 x 150	150 x 70		$7,000 00	$18,000 00
" " 54	Addition	1902	8					20,000 00
" " 54	Addition lot	1908		100 x 150			10,000 00	
" " 55	Chestnut and Fourth aves.	1890	12	176 x 220	58 x 110		5,000 00	44,433 12
" " 55	Addition lot and building	1902	12	48 x 120	64 x 156		1,200 00	46,769 42
" " 55	"Pitt" lot.,	1910		175 x 225			6,075 68	
" " 57	Church st., nr. Merryman's lane...	1889	6	88 x 245.6	26 x 134		1,300 00	700 00
" " 58	Woodberry ave., Woodberry	1889	8	Average 40 x 130	37 x 96		375 00	10,000 00
" " 59	Reistertown road and Fifth ave. (Irregular lot.)	1910	24	195 x 349	Average 75 x 152		5,500 00	117,077 62
" " 60	Francis and Clifton sts.	1893	25	120 x 150	55 x 83 / 90 x 113	$30 00	7,500 00	35,539 00
	Lot	1909		61.6 x 150			5,186 13	
	Addition	1908						24,512 00
	Addition	1911		181.6 x 150	39 x 135 / 27 x 40			56,110 00
" " 60 Br.	Clifton st., nr. Penna. ave		6	40 x 150	40 x 90		Nominal	
" " 61	Linden ave. and Konig st	1897	18	165 x 150	64 x 136		19,250 00	54,000 00
" " 62	Walbrook ave and Smallwood st	1902	23	150 x 210	72 x 144		5,000 00	65,203 81
" " 63	Ninth and Northwest sts.	1894	10	128 x 226.6	62 x 104		4,718 66	25,000 00
	Addition	1912	8		66.4 x 93.6			44,576 00
" " 64	Liberty road and Maine ave., Forest Park	1905	8	192.6 x 323	63 x 85		6,000 00	43,167 05
	Addition	1912	10					57,393 30

"	"	65	Calverton, Bloomingdale road....	1893	10	76 x 169	60 x 86	.....	1,500 00	15,500 00
			Additional lot, Irregular.....	1908		215.3 x 171.10	....	.....	5,000 00	.....
"	"	66	Carroll, Old Frederick road.....	1892	4	61 x 238	52 x 27	.....	2,000 00	4,500 00
"	"	67	Old Frederick road, Fairview ave.	1892	6	150 x 257	67 x 92	.....	6,000 00	15,000 00
"	"	68	Millington and Lehman aves	1892	12	86 x 200	55 x 112	.....	4,000 00	21 000 00
			Two additional lots	1910		76.3 x 86 200 x 115	.....	.....	6,532 65	.....
"	"	70	William st. and Warren ave	1912	24	190.9 x 140 New	82 x 161	175 00	35,083 63	123,950 00
"	"	71	Bond and Jefferson sts.....	1884	16	70 x 154.3	55 x 116	19 00	8,700 00	20,000 00
"	"	72	Ridgely st., nr. Fremont ave.....	1877	16	124.6 x 155	56 x 130	620 62	.....	25,000 00
"	"	73	Aisquith st.. nr. Lexington.....	1870	16	80 x 180	44 x 100	25 00	17,100 00	20,000 00
"	"	74	Twenty-second and Cromwell sts.	1902	23	200 x 297	72 x 144	.....	7,000 00	71,110 47
"	"	75	Carrollton ave. and Lexington..	1886	22	49.6 x 103	48 x 133	.....	10,000 00	20,000 00
			Carrollton ave., nr. Lexington..	1860		88 x 160.4	48 x 118	400 00	.....	20,000 00
"	"	76	Clement and Hull sts.....	1882	16	100 x 153	57 x 113 36 x 76	.....	5,833 32	18,000 00
			Addition.....	1910	4		40 x 67 65 x 51	372 00	3,487 50	17,207 94 20,000 00
"	"	77	Washington st. nr. Fayette st	1871	16	93 x 134				
"	"	78	Harlem ave. and Monroe sts.....	1893	17	157.4 x 249.6 A closed alley 10 x 249.6	56.4 x 143.6	.....	17,500 00	30,500 00
"	"	79	Park ave. and Hoffman st.....	1892	24	120 x 150	100 x 147	1,020 00	.....	35,000 00
"	"	80	Eden and Federal sts.....	1890	24	100 x 180	61 x 123 35 x 89	.....	8,000 00	33,000 00
"	"	81	Gilmor and Presstman sts.....	1875	16	155.6 x 116.5	60 x 122	620 00	.....	18,350 00
"	"	82	Mulberry st., nr. Fremont ave.....	1868	14	87.8 x 134	55 x 115	350 67	.....	15,000 00
"	"	83	Lakewood ave. and Orleans st....	1902	24	200 x 145	70 x 144	.....	9,166 66	63,475 90
"	"	83	Lakewood ave. and Fayette st.	1912	18	150 x 145	71 x 142	.....	6,265 45	.....
"	"	84	Johnson and Heath sts.....	1902	21	148.3 x 214.6	70 x 144	.....	10,000 00	69,218 35
"	"	85	Lakewood ave. and Oliver st.....	1904	24	150 x 320.3	71 x 150	.....	4,382 75	92,296 85
"	"	86	Mulberry and Payson sts.....	1910	24	150 x 196.4	71 x 92.6 58 x 95	.....	13,760 40	122,884 41
"	"	91	Argyle ave., nr. Lanvale st.....	1858	12	80 x 140	45 x 100	195 00	2,000 00	13,000 00

SCHOOLS.	LOCATIONS.	Erected.	Class Rooms	Size of Lot.	Size of Building.	Ground Rent.	Cost. Lot.	Cost. Building.
School No. 92	Charles and Ostend sts.	1882	18	74.6 x 219.2	55 x 148		$6,208 33	$28,000 00
" " 92	Addition (lot)			Average 26 x 189.8			2,300 00	
" " 93	Baltimore st., nr. Aisquith	1879	16	90 x 170	55 x 122	$1,000 00		28,000 00
" " 93 W. B.	Baltimore st., nr. Aisquith	1879	6	30 x 170	27 x 52 18.6 x 64		11,600 00	In cost of lot
" " 94	Chase and McDonogh sts	1882	24	80 x 223	56 x 185		8,362 50	38,675 00
" " 95	Lexington st., nr. Fremont ave.	1890	16	81 x 220.6	60.8 x 123.4		15,000 00	25,000 00
" " 96	Ramsay and Smallwood sts	1895	12	178.7 x 165.6	53 x 135		4,000 00	35,000 00
" " 98	Ramsay and Pulaski sts	1904	24	178.8 x 165.6	62 x 80 69 x 96		8,000 00	84,985 95
" " 99	North ave. and Washington st	1891	23	80 x 150 Average 70 x 150 57 x 120	78 x 180		5,000 00 4,000 00 4,229 47	54,970 39
" " 100	Mount and Saratoga sts	1896	17	151.4 x 112.10 44 x 56	80 x 125		10,000 00	63,315 16
" " 101	Jefferson st., nr. Caroline	1855	6	83.5 x 80	30 x 80	200 00	1,350 00	5,000 00
" " 103	Division st., nr. Lanvale	1877	16	104 2 x 171.3	55 x 120	800 00		28,255 66
" " 105	Rogers ave., nr. Lexington st	1874	12	75 x 105	49 x 80	25 00	4,125 00	14,000 00
" " 106	Hill, nr. Sharp st	1893	20	Average 80 x 167	Average 60 x 120	192 00	16,000 00	27,000 00
" " 107	Biddle st., nr. Penna. ave	1870	12	70 x 150	35 x 89	70 00	15,000 00	10,000 00
" " 108	Caroline st., nr. Bank	1867	10	76 x 90	45.6 x 65.3	134 00	4,800 00	8,000 00
" " 109	Fremont ave. and King st	1843	13	74 x 157	43 x 100		1,200 00	8,000 00

" " 110	Waesche st., nr. Fremont ave.	1877	18	Average 120 x 141	60 x 118		9,600 00	22,000 00
" " 111	Bond st. and Ashland ave	1864	10	80 x 80	42 x 52		3,366 66	7,000 00
" " 112	Carey and Chappell sts.	1897	18	Average 110 x 140	66 x 110		10,500 00	40,408 70
" " 113	Girard ave. and Sherman Place	1895	9	120 x 124	78 x 69		7,200 00	23,963 00
" " 115	Merryman's lane, Waverly	1889	4	32.6 x 127.5	22.6 x 73	$50 00		$4 500 00
" " 116	Druid Hill ave., nr. Biddle st.	1841	12	75 x 100	44 x 100	150 00		12,000 00
Chester st. and Ashland ave. (lot)		1897		200 x 133.3			13,829 60	
Pennsylvania ave. and Biddle st. (lot)		1898		92.2 x 200			26,500 00	
Saratoga st., nr Charles st., now used by Police Dept.		1888		66 x 193				
Summit and Monroe sts. (lot)				72.4 x 245			9,500 00	
Frederick road, west of Millington ave. (lot)		1889		40 x 289		50 00		
Parental School (lot) Old Frederick road		1907		Irregular 400 x 416 370 x 353			7,009 30	
Orem Lane		1907		180 x 134			15,000 00	

TABLE B—*Concluded.*

PORTABLE SCHOOLS.	Erected.	Size of Lot.	Size of Building.	Ground Rent.	Cost	
					Lot	Buildings.
School No. 19, Hollins st., near Monroe	1908					$1,400 00
" " 34, Columbia ave. and Carey st. (2 bldgs.)	1906-08					2,800 00
" " 63, Ninth and Northwest sts..	1908					1,400 00
" " 63, " " " "	1910					1,400 00
" " 64, Branch, West Arlington (2 bldgs)	1904					2,400 00
" " 67, Old Frederick Road (2 buildings)	1906-08					2,800 00
" " 72, Ridgely st., near Barre	1908					1,400 00
" " 83, Lakewood av. & Orleans st (2 bldgs)	1905					2,800 00
" " 83, " " " (3 bldgs.)	1908					4,200 00
" " 83, " " "	1910					1,200 00
" " 91, Argyle avenue, near Lanvale	1908					1.400 00
" " 93, Baltimore and Aisquith sts	1908					1,400 00
" " 99, North av. & Washington st (2 bldgs.)	1906					2,800 00
Col. High School, Penna ave. and Dolphin st	1904					1,200 00
School No. 107, Biddle st. and Penna ave. (2 bldgs.)	1905					2,800 00
" " 109, Branch, Mount Olivet lane	1905					1,400 00
" " 112, Carey and Chappell sts. (2 buildings)	1905					2,800 00
" " 113, Girard av. & Sherman Pl. (2 bldgs).	1905					2,800 00
" " 113, Girard av., nr. Greenm't av. (2 bldgs).	1906					2,800 00
" " 115, Talbot st., Waverly (2 buildings)	1908					2,800 00
" " 118, Gold and Calhoun sts	1905					1,400 00
Parental School, Gilmor Lane	1905					1,800 00

TABLE C.

SHOWING LOCATION OF RENTED BUILDINGS AND LOTS, BY WHAT SCHOOLS OCCUPIED, AMOUNTS OF YEARLY RENTALS, AS OF DECEMBER 31, 1911.

SCHOOLS.	LOCATIONS.	YEARLY RENTAL
Baltimore City College, Annex	611 N. Eutaw street	$1,200 00
School No. 6,	Broadway Market Hall	
" 50, Branch	Southeast corner Washington and Harrison streets	180 00
" 51, Branch	Gilmor lane, near York road	480 00
" 56	Druid avenue, Woodberry	500 00
" 58, Branch	Woodberry avenue, near Hooper avenue	600 00
" 64, Branch	Granada and Penhurst avenues (lot)	100 00
" 76, Branch	Hull street, near Fort avenue	75 00
" 83, Annex	Branch No. 13, Pratt Library, Patuxent, Cor. Fayette St.	
" 93, E. Branch	1126 East Baltimore street	960 00
" 97	117 and 119 Jackson Place	$670-$550— 1,220 00
Colored High School, Annex	Dolphin and Lambert streets	330 00
" " "	1139 Pennsylvania ave. (2d and 3d floors)	360 00
" " "	Pennsylvania avenue, near Dolphin st. (main auditorium A. M. E. Zion Church)	420 00
School No 107, Branch	617 West Biddle street	1,000 00
" 109, Branch	} Mount Olivet lane	60 00
	} Mount Olivet lane (lot)	75 00
" 111, Branch	801 North Bond street	420 00
" 112, Branch	2018-2020-2022 Penna. ave. (2d and 3d floors)	480 00
" 113	Greenmount and Girard avenues (lots)	116 00
" 115	Talbot street, rear of School No. 115 (lot)	75 00
" 118	Gold and Calhoun streets	600 00
" 118, Branch	Garrison road, Calverton road and Edmondson avenue	300 00
Parental School	Gilmor lane, near Barclay street	600 00

SECRETARY'S STATEMENT

OF THE

ACCOUNTS OF THE PUBLIC SCHOOLS

From July 1, 1911, to June 30, 1912.

(SCHOLASTIC YEAR 1911-1912.)

Amount to credit, July 1, 1911		$755,039 31
Amount appropriated by the Mayor and City Council for the expenses of the schools for the fiscal year 1912		1,806,219 00
Amount received from the State for free text-books		55,844 75
Amount received from exchange and sale of old books		846 60
Amount received from the State for State High School Fund		10,000 00
Amount received from intestate estates		9,627 57
Total		$2,637,577 23
Amount unexpended December 31, 1911, paid into General Fund City Treasury	$32,764 54	
Amount expended	1,825,213 53	
		1,857,978 07
Amount unexpended, carried forward to 1912-1913		$779,599 16

Itemized as follows:

OFFICE SALARIES.

Amount to credit, July 1, 1911		$4,604 49
Amount appropriated for fiscal year 1912		9,200 00
		$13,804 49
Amount unexpended December 31, 1911, paid into General Fund City Treasury	$4 52	
Amount expended	8,880 61	
		8,885 13
Amount carried forward to 1912-1913		$4,919 36

OFFICE EXPENSES.

Amount to credit, July 1, 1911		$620 87
Amount appropriated for fiscal year 1912		1,500 00
		$2,120 87
Amount unexpended December 31, 1911, paid into General Fund City Treasury		
Amount expended	$1,370 12	
		1,370 12
Amount carried forward to 1912-1913		$750 75

DAY SCHOOL SALARIES.

Amount to credit, July 1, 1911		$548,737 43
Amount appropriated for fiscal year 1912		1,575,848 00
		$2,124,585 43
Amount unexpended December 31, 1911, paid into General Fund City Treasury	$26,980 01	
Amount expended	1,524,057 45	
		1,551,037 46
Amount carried forward to 1912-1913		$573,547 97

DAY SCHOOL EXPENSES.

Amount to credit, July 1, 1911		$95,570 58
Amount appropriated for fiscal year 1912		162,350 00
		$257,920 58
Amount unexpended December 31, 1911, paid into General Fund City Treasury		
Amount expended	$166,147 17	
		166,147 17
Amount carried forward to 1912-1913		$91,773 41

NIGHT SCHOOL SALARIES.

Amount to credit, July 1, 1911		$10,016 00
Amount appropriated for fiscal year 1912		21,321 00
		$31,337 00
Amount unexpended December 31, 1911, paid into General Fund City Treasury	$563 90	
Amount expended	20,561 05	
		21,124 95
Amount carried forward to 1912-1913		$10,212 05

NIGHT SCHOOL EXPENSES.

Amount to credit, July 1, 1911		$2,998 44
Amount appropriated for fiscal year 1912		4,500 00
		$7,498 44
Amount unexpended December 31, 1911, paid into General Fund City Treasury	$1,046 88	
Amount expended	3,440 78	
		4,487 66
Amount carried forward to 1912-1913		$3,010 78

FREE TEXT-BOOKS.

Amount to credit, July 1, 1911		$40,823 16
Amount received from the State, July 1, 1911, to June 30, 1912		55,844 75
Amount received from sale and exchange of old books, July 1, 1911, to June 30, 1912		846 60
		$97,514 51
Amount expended		57,422 90
Amount carried forward to 1912-1913		$40,091 61

STATE HIGH SCHOOL FUND.

Amount to credit, July 1, 1911		$11,470 63
Amount received from the State, July 1, 1911, to June 30, 1912		10,000 00
		$21,470 63
Amount expended		8,023 83
Amount carried forward to 1912-1913		$13,446 80

INTESTATES ESTATES.

Amount to credit, July 1, 1911		$5,207 13
Amount received from the State, July 1, 1911, to June 30, 1912		9,627 57
		$14,834 70
Amount expended		4,366 51
Amount carried forward to 1912-1913		$10,468 19

EQUIPPING NEW BUILDINGS.

Amount to credit, July 1, 1911		$27,505 58
Amount appropriated for fiscal year 1912		21,500 00
		$49,005 58
Amount expended		24,162 80
Amount carried forward to 1912-1913		$24,842 78

PARENTAL SCHOOL.

Amount to credit, July 1, 1911		$6,495 00
Amount appropriated for the fiscal year 1912		10,000 00
		$16,495 00
Amount unexpended December 31, 1911, paid into General Fund City Treasury	$4,169 23	
Amount expended	5,790 31	
		9,959 54
Amount carried forward to 1912-1913		$6,535 46

The per capita cost, as here given, is based on the expenditures and the number of pupils belonging, including temporary withdrawals, June 30, 1912.

PER CAPITA COST.

For all the day schools	$27 35
For all the day secondary schools	73 86
For all the day elementary schools	23 50
For all the night schools	6 21
Average annual salary of high school teachers	$1,329 66
Average annual salary of elementary school teachers	708 02

The following table ("A") shows itemized expenditures, etc.

JOHN H. ROCHE, *Secretary.*

TABLE A.

ITEMIZED EXPENDITURES FOR THE SCHOLASTIC YEAR, JULY 1, 1911, TO JUNE 30, 1912.

Names.	Distribution of Charges.										Totals.
	Salaries.	Sationery and Supplies.	Text-Books.	Incidentals.	Rents.	Fuel.	Repairs.	Furniture.	New Equipment.	Equipping New Buildings.	
General Expense	$55,978 55	$1,135 60	$2,918 48	$14,368 27	.....	$1,201 62	$2,129 71	$91 75	$1,717 34	.....	$79,542 32
High and Normal Schools	286,277 84	14,045 66	13,650 47	7,608 19	$2,302 50	5,091 72	2,369 90	1,841 07	2,804 60	$2,283 77	329,858 75
Elementary Schools	1,168,142 34	34,839 28	43,637 39	11,230 71	6,357 66	44,739 99	10,161 14	3,146 62	8,096 66	21,879 03	1,352,293 95
Summer Schools	3,383 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,383 00
Attendance Officers	8,944 37	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,944 37
Parental School	4,399 15	.....	44 63	1,772 09	600 00	278 02	55 90	16 50	.....	.....	7,166 29
Night Schools	21,551 05	1,161 24	676 48	1,209 90	.....	.....	288 94	.....	532 67	.....	25,420 28
Office	8,880 61	339 96	.....	602 68	.....	149 59	38 89	185 50	53 50	.....	10,250 73
Grand Total	$1,557,556 91	$51,521 74	$60,927 45	$36,792 84	$9,260 16	$51,460 94	$15,044 48	$5,281 44	$13,204 77	$24,162 80	$1,825,213 53
For current expenses deduct the amount for Equipping New Buildings and New Equipment											37,367 57
Current expenses											$1,787,845 96

REPORT OF THE SUPERINTENDENT.

BALTIMORE, June 30, 1912.

The Board of School Commissioners.

GENTLEMEN: Article VI, Section 4 of the rules of the Board of School Commissioners requires the Superintendent of Public Instruction to submit a report on the condition of the schools at the close of each scholastic year. During the illness of the Superintendent, and his consequent absence from duty, from February to September, the duties of his office devolved upon the First Assistant Superintendent, as Acting Superintendent.

In accordance with the rules, and at the request of the Superintendent, I have the honor to submit the following report for the year ending June 30, 1912.

CHARLES J. KOCH,
Acting Superintendent.

GENERAL STATISTICAL SURVEY OF THE PUBLIC SCHOOL SYSTEM OF BALTIMORE CITY.

Table I presents a general survey of all day schools. Statistics are given for each grade of school, for the two races, and for the sexes. From these statistics all necessary comparisons can be made.

During the year 72,105 pupils were enrolled in the schools. This number does not include duplications of any kind whatever. The net roll, that is, the number of pupils remaining on the rolls on June 30, after subtracting the number of pupils who left school permanently during the year, was 63,323.

In former years, the annual report covered the fiscal year; now it covers the scholastic year. In consequence of this change, no fair comparison can be made between the net roll as shown by this report and in earlier reports. This is due to the fact that a greater number of children leave school in the spring months and near the end of the scholastic year.

The per cent. of attendance—91 in white schools and 84 in colored schools—is about the same as in other cities. The colored schools evidently need the especial care of the Department of School Attendance.

TABLE I.

General Survey of all Day Schools, showing: Number of Buildings, and Numbers of Superintendents, Supervisors, Teachers, and Pupils by Race, Sex, and Grade of Schools; also Grand Totals.

Grade of School.	Number of Schools June 30, 1912.	No. of Teachers, Including Principals and Substitutes in Charge of Classes.			Number of Pupils Belonging June 30, 1912.	Average Number Belonging for Scholastic Year.	Average Attendance for the Year.	Percentage of Attendance.	Total Enrollment of Pupils for the Scholastic Year, 1911-12.			Net Roll, June 30, 1912 (Inc. No. Belonging and Temporarily Dropped Absentees).
		Men.	Women.	Total.					Boys.	Girls.	Totals.	
WHITE SCHOOLS.												
Normal School—												
Teachers' Training School	1	1	5	6	117	131	125	94	2	153	155	121
Secondary Schools—												
Baltimore City College	1	33	.....	33	758	865	805	93	956	.....	956	791
Baltimore Polytechnic Institute	1	43	.....	43	836	896	834	93	1,021	.....	1,021	881
Eastern High School	1	2	34	36	779	812	750	93	.....	879	879	812
Western High School	1	1	40	41	1,054	1,153	1,080	94	.....	1,331	1,331	1,116
Totals	4	79	74	153	3,427	3,726	3,469	93	1,977	2,210	4,187	3,600
Elementary Schools—												
Grades One to Eight	88	59	1,228	1,287	46,424	48,985	43,618	91	27,644	27,313	54,957	48,509
Kindergartens	....	....	38	38	727	723	603	83	525	536	1,061	859
Ungraded classes	....	....	18	18	219	222	187	84	348	43	391	246
Parental School	1	....	2	2	31	33	32	99	5	.....	5	42
Totals	89	59	1,286	1,345	47,401	49,063	44,440	91	28,522	27,892	56,414	49,656
All White Schools— Totals	94	139	1,365	1,504	50,945	52,920	48,034	91	30,501	30,255	60,756	53,377
COLORED SCHOOLS.												
Normal School—												
Colored Training School	1	1	3	4	62	71	67	95	10	87	97	73
Secondary School—												
Colored High School	1	16	13	29	495	553	528	95	181	406	587	597
Elementary Schools—												
Grades One to Eight	15	40	170	210	7,582	8,080	6,737	83	4,636	5,748	10,384	9,054
Kindergartens	.....	.....	7	7	121	111	95	85	89	106	195	175
Ungraded classes	....	....	4	4	31	46	35	76	85	1	86	47
Totals	15	40	181	221	7,734	8,237	6,867	83	4,810	5,855	10,665	9,276
All Colored Schools— Totals	17	57	197	254	8,291	8,861	7,462	84	5,001	6,348	11,349	9,946
SUMMARY FOR ALL SCHOOLS.												
Normal Schools	2	2	8	10	179	202	192	95	12	240	252	194
Secondary Schools	5	95	87	182	3,922	4,279	3,997	93	2,158	2,616	4,774	4,197
Elementary Schools	104	99	1,467	1,566	55,135	57,300	51,307	90	33,332	33,747	67,079	58,932
Superintendents, Supervisors, and Special Teachers—												
Superintendent	....	1	.....	1	.....	.....	.....	....	.....	.....	.....	.....
Assistant Superintendents	....	6	.....	6	.....	.....	.....	....	.....	.....	.....	.....
Supervisors:												
Practice	....	....	7	7	.....	.....	.....	....	.....	.....	.....	.....
Music	....	....	4	4	.....	.....	.....	....	.....	.....	.....	.....
Drawing	....	....	1	1	.....	.....	.....	....	.....	.....	.....	.....
Sewing	....	....	1	1	.....	.....	.....	....	.....	.....	.....	.....
Physical training	....	1	.....	1	.....	.....	.....	....	.....	.....	.....	.....
Manual training	....	(*1)	.....	(*1)	.....	.....	.....	....	.....	.....	.....	.....
Special Teachers:												
Drawing	....	....	8	8	.....	.....	.....	....	.....	.....	.....	.....
Sewing	....	....	31	31	.....	.....	.....	....	.....	.....	.....	.....
Physical training	....	....	2	2	.....	.....	.....	....	.....	.....	.....	.....
Manual training	....	12	4	16	.....	.....	.....	....	.....	.....	.....	.....
Cookery	....	....	17	17	.....	.....	.....	....	.....	.....	.....	.....
Grand Totals	111	216	1,637	1,853	59,236	61,781	55,496	90	35,502	36,603	72,105	63,323

*Included in the faculty of the Polytechnic Institute.

TABLE II.

Grades of Schools Compared.

Net Roll of June 30, 1912, compared with Net Roll of June 30, 1911, showing Increase and Decrease.

White Schools.

Grade of School.	Year 1911-12.	Year 1910-11.	+Increase, —Decrease.
Normal School—			
Teachers' Training School...	121	147	—26
Secondary Schools—			
Baltimore City College (boys).	791	861	— 70
Polytechnic Institute (boys).	881	821	+ 60
Eastern High School (girls).	812	778	+ 34
Western High School (girls).	1,116	1,045	+ 71
Totals.....	3,600	3,505	+ 95
Elementary Schools—			
Grades 1 to 8.....	48,551	48,348	+203
Kindergartens.....	859	804	+ 55
Ungraded classes.....	246	286	— 40
Parental School.....	(*42)	(*38)	.....
Totals.....	49,656	49,438	+218
All White Schools—			
Totals.....	53,377	53,090	+287

Colored Schools.

Normal School—			
Colored Training School.....	73	76	— 3
Secondary School—			
Colored High School.....	597	582	+ 15
Elementary Schools—			
Grades 1 to 8.....	9,054	8,729	+325
Kindergartens	175	119	+ 56
Ungraded classes.....	47	56	— 9
Totals.....	9,276	8,904	+372
All Colored Schools—			
Totals.....	9,946	9,562	+384

*Included in totals for grade.

TABLE II—*Continued.*

GRADES OF SCHOOLS COMPARED.

Net Roll of June 30, 1912, compared with Net Roll of June 30, 1911, showing Increase and Decrease.

SUMMARY FOR ALL SCHOOLS.

GRADE OF SCHOOL.	Year 1911-12.	Year 1910-11.	+Increase. —Decrease.
Normal schools	194	223	— 29
Secondary schools	4,197	4,087	+110
Elementary schools	58,932	58,342	+590
Grand totals	63,323	62,652	+671

Table II gives comparative statistics from the records of 1910-1911 and 1911-1912. It will be observed that there is a small net increase in the number of pupils in both elementary and secondary schools. That the schools have held their own during the year is a matter of gratification.

Table III compares the number of pupils for each grade in 1911-1912 with the corresponding figures for 1910-1911. It is my opinion that this table points the way to some of our most difficult problems of school administration. The fluctuations in the different grades will be given most careful consideration.

TABLE III.

Different Grades of Classes Compared.

Net Roll By Grades of June 30, 1912, compared with Net Roll By Grades of June 30, 1911, showing Increase and Decrease.

Grade of Classes.	White Schools.			Colored Schools.			All Schools.		
	Year 1911-12.	Year 1910-11.	+Increase, —Decrease.	Year 1911-12.	Year 1910-11.	+Increase, —Decrease.	Year 1911-12.	Year 1910-11.	+Increase, —Decrease.
Normal Schools—									
Second year	59	80	— 21	50	50	.....	109	130	— 21
First year	62	67	— 5	23	26	— 3	85	93	— 8
Secondary Schools—									
Fifth year	6	6	.....	.....	.....	.....	6	6	.....
(*Number graduated)	(502)	(508)	(— 6)	(79)	(62)	(+ 17)	(581)	(570)	(+ 11)
Fourth year	581	533	+ 48	72	79	— 7	653	612	+ 41
Third year	697	655	+ 42	91	103	— 12	788	758	+ 30
Second year	964	941	+ 23	147	149	— 2	1,111	1,090	+ 21
First year	1,352	1,370	— 18	287	251	+ 36	1,639	1,621	+ 18
Elementary Schools—									
Eighth Grade	2,327	2,156	+171	306	341	— 35	2,633	2,497	+136
Seventh Grade	3,203	3,231	— 28	366	414	— 48	3,569	3,645	— 76
Sixth Grade	4,315	4,288	+ 27	597	521	+ 76	4,912	4,809	+103
Fifth Grade	5,641	5,865	—224	878	900	— 22	6,519	6,765	—246
Fourth Grade	7,224	7,251	— 27	1,136	1,227	— 91	8,360	8,478	—118
Third Grade	8,045	8,214	—169	1,527	1,558	— 31	9,572	9,772	—200
Second Grade	8,350	8,125	+225	1,892	1,930	— 38	10,242	10,055	+187
First Grade	9,446	9,218	+228	2,352	1,838	+514	11,798	11,056	+742
Kindergartens	859	804	+ 55	175	119	+ 56	1,034	923	+111
Ungraded classes	246	286	— 40	47	56	— 9	293	342	— 49
Totals	53,377	53,090	+287	9,946	9,562	+384	63,323	62,652	+671

*Included in Net Roll.

TABLE IV.

General Survey of all Night Schools, showing: Number of Schools, Number of Teachers and Pupils by Race, Sex, and Grade of Schools; also Grand Totals.

White Night Schools.

Grade of Schools.	Number of Schools.	Teachers.			Number Belonging March 31, 1912.			Average Number Belonging for the Year 1911-12.			Average Attendance for the Year 1911-12.			Perct'ge of Attendance for the Year 1911-12.			Total Enrollment for the Year 1911-12.		
		Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Secondary Schools—																			
Evening High (academic)	1	7	...	7	129	6	135	275	20	295	175	15	190	64	75	64	705	30	735
Baltimore City College (commercial)	1	8	9	17	108	160	268	200	298	498	142	213	355	71	71	71	387	579	966
Totals	2	15	9	24	237	166	403	475	318	793	317	228	545	67	72	69	1092	609	1701
Elementary Schools—																			
Totals	10	42	26	68	643	348	991	1120	548	1668	870	388	1258	78	71	75	2690	1301	3991
Industrial Arts—																			
Manual training	1	1	...	1	39	....	39	33	....	33	19	....	19	58	....	58	63	....	63
Cookery	10	...	10	10	....	446	446	....	489	489	....	355	355	....	73	73	....	675	675
Totals	11	1	10	11	39	446	485	33	489	522	19	355	374	58	73	72	63	675	738
Totals for all white schools	23	58	45	103	919	960	1879	1628	1355	2983	1206	971	2177	74	72	73	3845	2585	6430

TABLE IV—*Continued.*

General Survey of all Night Schools, showing: Number of Schools, Number of Teachers and Pupils by Race, Sex, and Grade of Schools; also Grand Totals.

COLORED NIGHT SCHOOLS.

GRADE OF SCHOOLS.	Number of Schools.	Teachers.			Number Belonging March 31, 1912.			Average Number Belonging for the Year 1911-12.			Average Attendance for the Year 1911-12.			Perct'ge of Attendance for the Year 1911-12.			Total Enrollment for the Year 1911-12.		
		Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Secondary Schools—																			
Evening High (academic), totals	1	7	4	11	85	158	243	129	256	385	84	169	253	65	66	66	288	547	835
Elementary Schools—																			
Totals	5	15	4	19	190	268	458	214	326	540	147	211	358	69	65	66	420	592	1012
Totals for all colored schools	6	22	8	30	275	426	701	343	582	925	231	380	611	67	65	66	708	1139	1847
Grand totals	29	80	53	133	1194	1386	2580	1971	1937	3908	1437	1351	2788	73	70	71	4553	3724	8277

TABLE V.

Comparison of Statistics of Night Schools for 1911-12 with corresponding data for 1910-11.

Items.	White Night Schools.			Colored Night Schools.			All Night Schools.		
	Year 1911-12.	Year 1910-11.	+Increase, —Decrease.	Year 1911-12.	Year 1910-11.	+Increase, —Decrease.	Year 1911-12.	Year 1910-11.	+Increase, —Decrease.
Number belonging March 31	1879	1751	+128	701	559	+142	2580	2310	+270
Average number belonging for the year	2983	2236	+747	925	800	+125	3908	3036	+872
Average attendance for the year	2177	1751	+426	611	579	+ 32	2788	2330	+458
Per cent. of attendance for the year	73	78	— 5	66	72	— 6	71	77	— 6
Number of teachers	103	71	+ 32	30	25	+ 5	133	96	+ 37

Tables IV and V relate to the night schools. They will be referred to later in this report.

Changes in the Department of Supervision.

During the term covered by this report two important changes have been effected in the supervisory department: The position of group-principal was abolished and the Board of Superintendents was reorganized.

The Board of Superintendents now consists of the following members: Francis A. Soper, Superintendent; Charles J. Koch, First Assistant Superintendent; Charles A. A. J. Miller, Second Assistant Superintendent; Joseph C. Hands, Assistant Superintendent; Robert W. Elliott, Assistant Superintendent; Rowland Watts, Assistant Superintendent; Andrew J. Pietsch, Assistant Superintendent.

Under the new regulations the Superintendent directs the entire school system. The Second Assistant Superintendent has supervision of the secondary schools, and the First Assistant Superintendent is in charge of the elementary schools.

The elementary schools are divided into four districts, to each of which one of the Assistant Superintendents is assigned.

The essential difference between the present system and the group system lies in the fact that every school is now in charge of a responsible head, or principal.

The duties of principals are mainly of a supervisory nature, but all principals teach part of the time. In order that principals may have time for supervision, extra teachers are assigned as assistants to principals. These assistant teachers have charge of the principals' classes part of the time. At other times they assist backward pupils in the schools.

The plan of having principals perform these double duties is open to some technical objections. There are many occasions when the services of the assistant to the principal are needed, but not available. Nevertheless, the plan gives promise of one

advantage, namely, that supervision may become increasingly helpful and constructive; for there seems to be reason to hope that supervisors who do some teaching will not become exorbitant in their demands respecting their teachers. Another commendable feature of the new plan is its provision for the presence of a responsible head in each building at all times.

Whether the present number of Assistant Superintendents is adequate for proper supervision cannot be stated with authority at this time. They have been relieved of clerical duties and they are not responsible for the distribution of books and supplies, a duty which formed a large part of the work of former group-principals. Nevertheless, the Assistant Superintendents have found it necessary to work overtime without intermission. They cannot be expected to continue indefinitely at their present rate.

The supervision and regulation of such large districts is at best a difficult task; under the attendant conditions it has been almost overwhelming. None but optimistic and brave men could undertake it. Now, at the close of the year, they deserve especial commendation for the tactful and earnest manner in which they have met their tasks. They have carried out modifications of the greatest signficance in the middle of the school term and without causing the slightest disturbance to regular classroom work. In carrying out these requirements, there were instances in which it became necessary to sever the most pleasant and long-continued relations between individuals. In others, vice-principals had to be transferred to lower positions. Yet, even under these unpleasant but unavoidable conditions, the Assistant Superintendents have performed their duties with success. Furthermore, they have had the co-operation of the teachers.

The City of Baltimore may feel proud to have a corps of teachers showing such steadiness of purpose. "It demonstrates that the teaching body has a higher ideal than loyalty to individuals and that the strength of our system lies in the teachers'

fidelity to the principles underlying the betterment of the nation through the education of its children."

Course of Study.

The fashion of judging a school system by the "enrichment" of the course of study is happily passing away. We have come to realize two important facts in this connection: first, that the curriculum cannot contain everything that may be of value to somebody; second, that it already embraces entirely too much. The manner in which this overloading came about need not concern us now. Experience shows that neither pupils nor teachers can meet the requirements of the present course of study and that the teachers are forced to choose what to teach and what to ignore. This, in itself, is not necessarily an evil. It may, indeed, be a real benefit in that it tends to break the unfortunate inflexibility of the course of study. If, while adding new subjects and new subject-matter, we had been equally industrious and successful in discarding old, worthless material; if, in other words, the curriculum now contained nothing but real, important facts, the teachers' choice of material could at least not fall on trivialities, as is now often the case. But as the course has never been thoroughly expurgated of obsolete material, much of which formed the subject-matter of the teachers' own training, there is great danger that the prospective advantages of flexibility will be more than offset by unwise choosing.

It becomes one of our greatest problems, therefore, to revise and simplify our course of study. To discuss, even in a general way, this revision is impossible in an annual report. May it be sufficient to state that the newer subjects—manual training, sewing, drawing, nature study and domestic art—have come to stay, that they will be developed, and that we shall attempt to make the school a medium in which the conditions of the social spirit are not wanting.

Baltimore, one of the first cities to establish a manual training school, has not been unmindful of the needs of elementary pupils in this respect. Manual training and cooking centers have been established in many sections. The unfortunate waste of time resulting from the long walks to and from these centers in being reduced as rapidly as conditions allow. Every new building is equipped with splendid manual training and cooking-rooms.

A revised course of study of the most approved type would answer our needs if all pupils remained at school long enough to come under its entire influence. But this is far from the actual condition; and here arises our second great problem—making the courses suit those who leave school early. I make no apology for not dwelling upon this point. The following tables tell the story.

TABLE VI*a*.

Showing the number (net roll) of pupils entering the elementary schools, the number advancing into each succeeding grade, and the remaining number graduated from the secondary schools during the last ten years. The figures are compiled from the official records of the Department of Education of this city.

Year Entered.	Grades in Elementary Schools.								Years in Secondary Schools.					Year Graduated.
	First Grade.	Second Grade.	Third Grade.	Fourth Grade.	Fifth Grade.	Sixth Grade.	Seventh Grade.	Eighth Grade.	First Year.	Second Year.	Third Year.	Fourth Year.	Graduated.	
													(c)	
1891.....	17,686	9,805	7,819	7,105	5,566	3,974	2,651	1,638	899	456	308	248	263	1903
1892.....	18,028	10,317	8,205	7,427	5,774	4,243	2,673	1,693	849	516	367	321	372	1904
1893.....	18,121	11,093	8,992	8,148	6,200	4,401	2,703	1,646	948	641	471	403	368	1905
1894.....	18,464	11,127	9,043	8,272	6,274	4,392	2,679	1,710	1,029	699	513	463	424	1906
1895.....	18,134	11,344	9,434	8,516	6,132	4,405	2,884	2,023	1,189	787	555	446	417	1907
1896.....	18,327	11,592	9,545	8,568	6,211	4,495	2,863	2,011	1,324	893	613	486	481	1908
1897.....	18,373	11,361	9,391	8,269	6,231	4,274	3,005	1,992	1,279	889	644	494	493	1909
1898.....	18,622	11,360	9,658	8,535	6,447	4,487	3,082	1,987	1,354	940	662	541	538	1910
1899.....	19,059	11,553	10,240	8,585	6,494	4,611	3,291	2,171	1,432	971	712	591	570	1911
1900.....	18,277	12,842	10,305	8,885	6,668	4,543	3,120	2,220	1,707	1,124	722	612	581	1912
Totals .	183,091	112,394	92,632	82,310	61,997	43,825	28,951	19,091	12,010	7,916	5,567	4,605	4,507	.....
(a).....	.....	61.4	50.6	45.0	33.9	23.9	15.8	10.4	6.6	4.3	3.0	2.5	2.5	.....
	.....	.....	.....	.....	.....	.....	.....	.....	(b)	65.9	46.4	38.3	37.5	.....

(a) Per cent. of total number in first grade during the ten years advancing into each succeeding grade.
(b) Per cent. of total number in first year, secondary schools advancing into each succeeding year.
(c) The number of graduates includes those from three-year courses.

TABLE VI*b*.

Showing the number (net roll) of pupils in the first grade, and the number advancing into each succeeding grade, and the number in the eighth grade during the last five years. Figures compiled from official records.

Year in First Grade.	Grades in Elementary Schools.								
	First Grade.	Second Grade.	Third Grade.	Fourth Grade.	Fifth Grade.	Sixth Grade.	Seventh Grade	Eighth Grade	Year in Eighth Grade.
	(a)								
1901	14,778	12,354	10,259	8,701	6,718	4,963	3,455	2,379	1908
1902	15,965	12,257	10,456	8,655	6,677	4,956	3,495	2,402	1909
1903	15,839	12,000	10,702	9,085	6,679	5,036	3,618	2,571	1910
1904	15,517	12,511	11,153	9,184	7,269	5,145	3,559	2,497	1911
1905	14,946	12,470	11,106	9,179	7,175	5,219	3,645	2,633	1912
Totals	77,045	61,592	53,676	44,804	34,518	25,319	17,772	12,482	.....
(b)	.....	79.9	69.7	58.2	44.8	32.9	23.1	16.2	.....

(a) Excluding numbers in kindergartens, which were included in the numbers given under first grade in the annual reports.

(b) Per cent of the total number in first grade during the five years advancing into each succeeding grade.

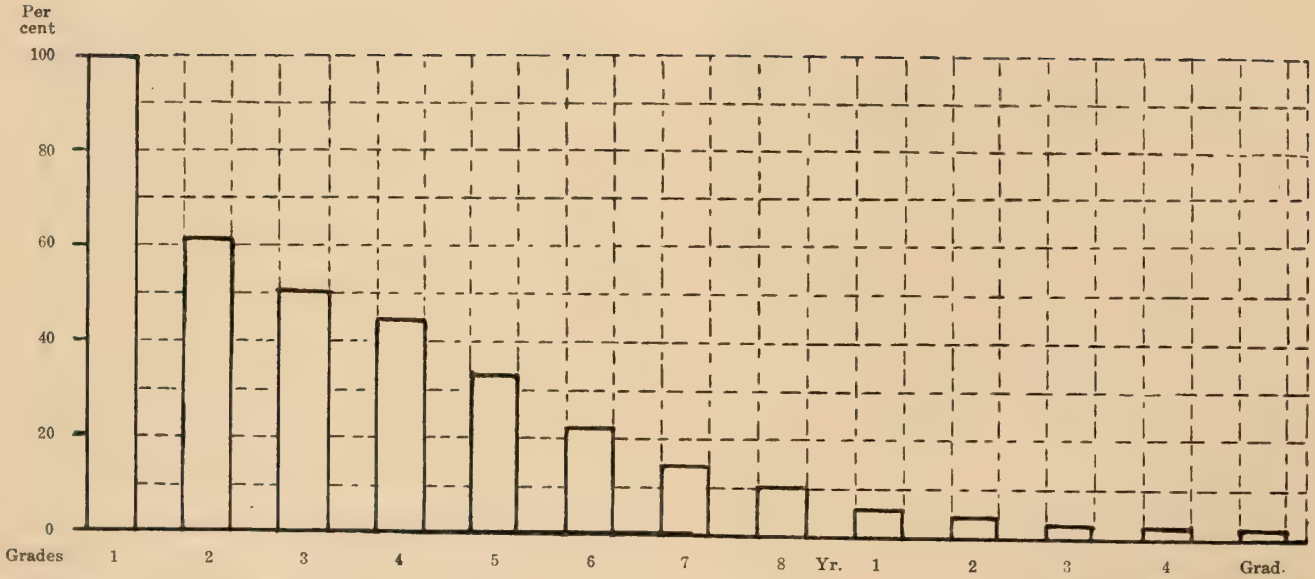

FIG. 1. Graphical illustration of Table VI*a*, item (a). The columns show the per cent of total number of pupils in first grade from 1891 to 1900 inclusive, advancing through each succeeding grade to graduation from secondary schools from 1903 to 1912 inclusive. Numbers below the columns indicate the grade in elementary schools and the year in secondary schools. Rates per cent are shown at the left.

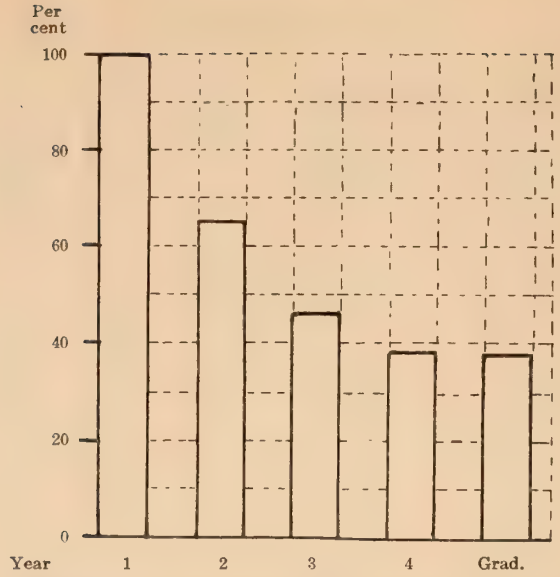

FIG. 2. Graphical illustration of Table VI*a*, item (b). The columns show the per cent based on the total number of pupils in first year, secondary schools and advancing to graduation, 1903 to 1912 inclusive. Below the columns the year in secondary schools and graduates are indicated; rates per cent at the left.

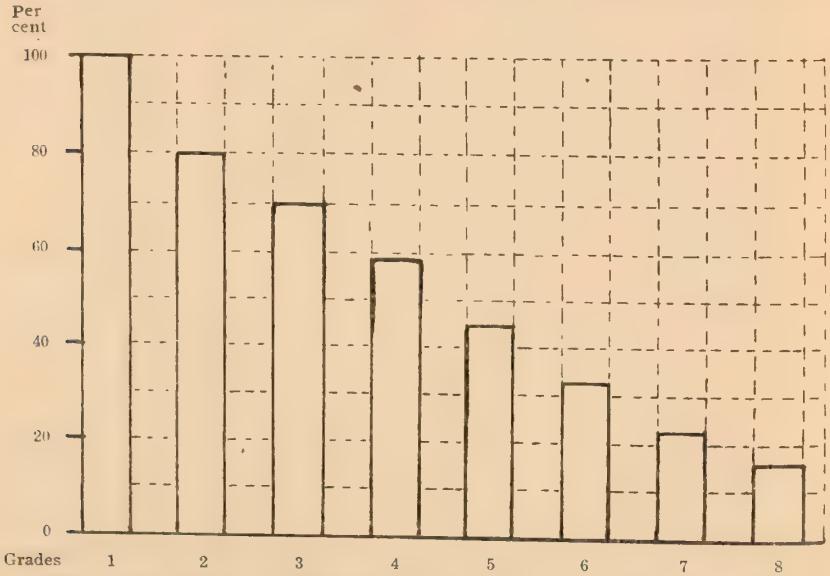

FIG. 3. Graphical illustration of Table VI*b*. The columns show the per cent of total number of pupils in first grade, elementary schools, 1901 to 1905 inclusive, advancing into each succeeding grade, and constituting the eighth grade, 1908 to 1912 inclusive. The grade is shown by the numbers below the columns; rates per cent at the left.

Table VI*a* is compiled from the records of the Department of Education. It shows the number of pupils enrolled in the several grades of the elementary and high schools during the ten years from 1891 to 1900. This period was chosen because from the first grades of these several years came the pupils who graduated from the secondary schools during the ten years ending 1912. The totals show that while 183,091 children were in the first grade during this period only 112,394, or 61.4 per cent, reached the second grade; 50.6 per cent, the third grade; 45 per cent, the fourth grade; 33.9 per cent, the fifth grade; 23.9 per cent, the sixth grade; 15.8 per cent, the seventh grade; 10.4 per cent, the eighth grade; 6.6 per cent, the first year of secondary schools; 4.3 per cent, the second year; 3 per cent, the third year; 2.5 per cent, the fourth year and graduation. In other words, out of every 200 children who entered the first grade, 179 left before completing the elementary course, and only five graduated from the high schools.

Table VI*b* shows somewhat better results. The improvement is due mainly to the added attention that was given to the question of promotion, and not to any modification of the course of study. In spite of this improvement, not one-half of the pupils are in the fifth grade. Now, let any investigator go into our best fourth-grade classes, examine the pupils, and then pass judgment as to their fitness to be allowed to leave.

The Department of Education has no records showing why children leave school before completing the course. I strongly urge the importance of gathering statistics for this purpose. The most apparent reasons are poor health, inability to gain promotion, and the necessity of becoming bread-winners. As regards the factor poor health, it may be said that the newer school buildings afford every physical advantage. They are large, well-lighted, and well-ventilated, and some of them will contain at least one open-air classroom. With better medical inspection and more healthful surroundings, the health of the pupils should improve.

There can be no doubt that many children are forced from school because they cannot keep up with their classes. This forcing out may be due to the pupils' own habits of indifference, laziness, or defiance of authority; nevertheless, it is too great a penalty, even in the most extreme case.

Unfortunately, the most potent contributing causes of early withdrawals are economic and, therefore, beyond the control of the Department of Education. Poor home conditions call for these youthful recruits to the army of wage-earners. In many cases the children concerned are bright and active. They can easily meet the educational tests of the attendance law, and hence they are withdrawn from the system. Society suffers an incalculable loss in this way; for the natural endowments of these children, if properly developed, would tend to make them leaders in good movements.

Failing in our efforts to hold these pupils in the regular day schools, it becomes our duty to provide for them in another way. The best way seems to be the

Continuation School.

The term "continuation school" is used somewhat ambiguously. According to our definition, it is an institution which gives working boys and girls ample opportunity to receive instruction in the common school studies and in special work related to, and growing out of, their own occupations.

These schools have reached their highest development in Munich, Bavaria. The school report for Munich shows that more than 10,000 young men and women are receiving regular instruction in these schools. The effect of such a force in a community cannot be overestimated. While our young men and women are left to seek amusement or instruction without proper guidance, their German contemporaries are engaged in profitable study in splendid buildings devoted exclusively to continuation school work. In addition to six con-

tinuation school buildings, Munich maintains similar classes in eleven regular day school buildings, and these provisions are further supplemented by a special continuation school for backward pupils.

Baltimore cannot make such provision for its young men and women for many years to come. An enormous waste of effort is inevitable; but it should be minimized with all possible speed.

As a first step in this direction, it will be necessary to establish closer relations between the schools and the industries: the sympathy and co-operation of merchants, manufacturers, and civic bodies are necessary to this work. In Munich that spirit prevails. Why not in Baltimore?

In lieu of adequate facilities, the Board of School Commissioners has for years offered limited advantages to those who volunteer to attend the

Night Schools.

Tables IV and V (pages 52, 53 and 54) contain statistical information concerning the night schools. It will be observed that they have grown in popularity. The low per cent of attendance this year is due to an unusually severe winter. For six weeks the weather was so bad that none but the most earnest workers would attend. The same conditions are responsible for the relatively larger number of teachers employed; for the number of teachers engaged cannot be made to fluctuate with the rising and falling attendance of pupils.

The universally low rate of attendance in night schools throughout the country has raised the question of their value as a part of a public school system. We must admit that they reach but a very small proportion of the young men and women who stand most in need of general training. Their main benefits accrue to adult foreigners desiring to learn English, and to students of special branches, such as bookkeeping, stenography, and typewriting.

The commercial evening school of the Baltimore City College is very flourishing. The diploma issued by this school has a real, commercial value.

The evening high school affords splendid opportunities to students preparing for civil service and other examinations.

In the absence of continuation schools, we must repose our faith in the night schools and develop them as much as possible. As a step in this direction, I would suggest that the splendid physical and chemical laboratories at the City College be opened to night school students whose daily work would be made more pleasant and profitable through instruction in science. Such courses ought to appeal to electricians and all workers in wood and metals.

On November 22, 1911, the Board of School Commissioners adopted a resolution extending the work of the night schools and authorized evening lectures. In compliance with this resolution, the following lectures were given:

TABLE VII.

Lectures in connection with Night Schools.

Number.	Subject.	Lecturer.	Place.	Attendance (Approximate).
I	"Yellowstone Park"	Charles J. Koch	B. C. C.	1,000
II	"Fire"	Leslie H. Ingham, Ph.D.	B. C. C.	1,000
III	"Yellowstone Park"	Charles J. Koch	C. H. S.	400
IV	"History of East Baltimore"	Charles J. Koch	No. 2	300
V	"Household and Other Insects"	Thomas W. Turner	C. H. S.	400
VI	"Liberia"	Ernest Lyon, D. D.	C. H. S.	400
VII	"Oral Hygiene"	B. Holly Smith, M. D.	No. 2	600
VIII	"Aviation"	D. O. W. Holmes	C. H. S.	400
IX	"Battle of North Point"	Charles J. Koch	No. 51	600
X	"Social Hygiene"	Lucia Davis	C. H. S.	400
XI	"Life in Japan"	Dr. J. O. Spencer	C. H. S.	400
XII	"Battle of North Point"	Charles J. Koch	C. H. S.	400
XIII	"The Cliff Dwellers"	Geo. S. Cole, Ph.D., Pasadena, Cal.	B. C. C.	600

The figures in this table show the splendid attendance. They convey no idea of the enthusiasm which prevailed at these meetings. I strongly urge the development of this extension work.

Retardation.

The problem of retardation is plainly disclosed in the following tables and graphs:

TABLE VIIIa.

DISTRIBUTION OF WHITE PUPILS IN ELEMENTARY SCHOOLS BY AGES AND GRADES, JUNE 30, 1912.

Showing also for each grade and for totals by ages the number of pupils below normal age, of normal age, and above normal age (retarded) for the grade. Number of normal age inclosed between the horizontal lines in body of table.

AGES.	First Grade.			Second Grade.			Third Grade.			Fourth Grade.			Fifth Grade.			Sixth Grade.			Seventh Grade.			Eighth Grade.			Totals by Ages.		
	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.
5-6	7	9	16																						7	9	16
6-7	1,211	1,220	2,431	31	26	57																			1,242	1,246	2,488
7-8	2,166	2,085	4,251	739	769	1,508	36	31	67																2,941	2,885	5,826
8-9	933	872	1,805	1,675	1,650	3,325	549	614	1,163	27	53	80		1	1										3,184	3,190	6,374
9-10	342	288	630	1,020	925	1,945	1,345	1,438	2,783	468	578	1,046	54	71	125	7	3	10							3,236	3,303	6,539
10-11	99	98	197	464	391	855	1,021	971	1,992	1,082	1,095	2,177	379	410	789	52	41	93	1	2	3				3,098	3,008	6,106
11-12	36	26	62	211	177	388	622	530	1,152	972	976	1,948	849	957	1,806	345	423	768	53	59	112	3		3	3,091	3,148	6,239
12-13	20	17	37	121	63	184	304	262	566	689	583	1,272	781	784	1,565	652	787	1,439	262	297	559	45	47	92	2,874	2,840	5,714
13-14	3	3	6	33	30	63	124	98	222	269	211	480	447	430	877	585	549	1,134	523	571	1,094	235	286	521	2,219	2,178	4,397
14-15	3	6	9	14	3	17	41	36	77	114	68	182	206	168	374	354	273	627	438	491	929	392	459	851	1,562	1,504	3,066
15-16		1	1	3	5	8	13	9	22	25	6	31	55	33	88	133	67	200	216	177	393	285	317	602	730	615	1,345
16-17	1		1					1	1	3	5	8	13	3	16	25	19	44	55	58	113	123	135	258	220	221	441
Totals by grades	4,821	4,625	9,446	4,311	4,039	8,350	4,055	3,990	8,045	3,649	3,575	7,224	2,784	2,857	5,641	2,153	2,162	4,315	1,548	1,655	3,203	1,083	1,244	2,327	24,404	24,147	48,551
Below normal age	7	9	16	31	26	57	36	31	67	27	53	80	54	72	126	59	44	103	54	61	115	48	47	95	316	343	659
Normal age	3,377	3,305	6,682	2,414	2,419	4,833	1,894	2,052	3,946	1,550	1,673	3,223	1,228	1,367	2,595	997	1,210	2,207	785	868	1,653	627	745	1,372	12,872	13,639	26,511
Above normal age	1,437	1,311	2,748	1,866	1,594	3,460	2,125	1,907	4,032	2,072	1,849	3,921	1,502	1,418	2,920	1,097	908	2,005	709	726	1,435	408	452	860	11,216	10,165	21,381

TABLE VIII*b*.

Distribution of White Pupils in Secondary Schools by Ages and Grades, June 30, 1912.

Showing also for each grade and for totals by ages the number of pupils below normal age, of normal age, and above normal age (retarded) for the grade. Number of normal age inclosed between the horizontal lines in body of table.

Ages.	First Year.			Second Year.			Third Year.			Fourth Year.			Totals by Ages.		
	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.
12-13	1	20	21	....	1	1	....	....	....	....	....	....	1	21	22
13-14	64	79	143	8	7	15	....	....	....	....	....	....	72	86	158
14-15	202	204	406	49	52	101	6	....	6	....	1	1	257	257	514
15-16	215	208	423	154	135	289	28	27	55	8	4	12	405	374	779
16-17	127	127	254	113	184	297	92	115	207	42	33	75	374	459	833
17-18	37	52	89	89	113	202	117	145	262	79	104	183	322	414	736
18-19	6	3	9	27	24	51	46	87	133	82	104	186	161	218	379
19-20	7	....	7	6	2	8	11	20	31	50	62	112	74	84	158
20-21	....	....	....	....	....	....	1	2	3	3	7	10	4	9	13
21 and over	....	....	....	....	....	....	....	....	....	2	....	2	2	....	2
Totals by grades	659	693	1,352	446	518	964	301	396	697	266	315	581	1,672	1,922	*3,594
Below normal age	65	99	164	57	60	117	34	27	61	50	38	88	206	224	430
Normal age	417	412	829	267	319	586	209	260	469	161	208	369	1,054	1,199	2,253
Above normal age	177	182	359	122	139	261	58	109	167	55	69	124	412	499	911

*There are six pupils in the fifth year (post-graduate course) in the Western High School.

TABLE VIII*c*.

Showing number of white pupils below normal age for the grade, of normal age, above normal age (retarded), and the corresponding rates per cent for each grade of the elementary and the secondary schools, June 30, 1912, based on totals from Tables VIII*a* and VIII*b*.

Grades.	Number of Pupils, June 30, 1912.	Number of Pupils.			Per Cent of Pupils.		
		Below Normal Age.	Normal Age.	Above Normal Age.	Below Normal Age.	Normal Age.	Above Normal Age.
Elementary—							
1st Grade	9,446	16	6,682	2,748	0.2	70.7	29.1
2nd Grade	8,350	57	4,833	3,460	0.7	57.9	41.4
3rd Grade	8,045	67	3,946	4,032	0.8	49.1	50.1
4th Grade	7,224	80	3,223	3,921	1.1	44.6	54.3
5th Grade	5,641	126	2,595	2,920	2.2	46.0	51.8
6th Grade	4,315	103	2,207	2,005	2.4	51.1	46.5
7th Grade	3,203	115	1,653	1,435	3.6	51.6	44.8
8th Grade	2,327	95	1,372	860	4.1	59.0	36.9
Secondary—							
1st Year	1,352	164	829	359	12.1	61.3	26.6
2nd Year	964	117	586	261	12.1	60.8	27.1
3rd Year	697	61	469	167	8.8	67.3	23.9
4th Year	581	88	369	124	15.1	63.5	21.4
Totals	52,145	1,089	28,764	22,292	2.1	55.1	42.8

TABLE IX*a*.

Distribution of Colored Pupils in Secondary Schools by Ages and Grades, June 30, 1912.

Showing also for each grade and for totals by ages the number of pupils below normal age, of normal age, and above normal age (retarded), for the grade. Number of normal age inclosed between the horizontal lines in body of table.

Ages.	First Grade.			Second Grade.			Third Grade.			Fourth Grade.			Fifth Grade.			Sixth Grade.			Seventh Grade.			Eighth Grade.			Totals by Ages.		
	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.
5-6	13	25	38																						13	25	38
6-7	221	239	460	4	18	22																			225	257	482
7-8	310	323	633	63	108	171	3	9	12																376	440	816
8-9	277	273	550	178	206	384	65	73	138	7	7	14													527	559	1,086
9-10	143	129	272	187	228	415	129	168	297	26	64	90	1	5	6										486	594	1,080
10-11	109	77	186	190	149	339	125	179	304	66	124	190	36	45	81	2	5	7							528	579	1,107
11-12	65	44	109	117	116	233	142	166	308	91	153	244	57	95	152	17	35	52	1	11	12	1	1	2	491	621	1,112
12-13	40	19	59	108	86	194	113	113	226	104	153	257	102	140	242	28	90	118	10	18	28	10	12	22	515	631	1,146
13-14	16	13	29	45	38	83	64	72	136	72	100	172	94	96	190	53	92	145	23	55	78	18	26	44	385	492	877
14-15	7	4	11	27	13	40	38	32	70	78	51	129	64	66	130	51	93	144	37	75	112	28	42	70	330	376	706
15-16	3	1	4	6	4	10	13	10	23	17	16	33	20	39	59	26	58	84	25	52	77	20	54	74	130	234	364
16-17		1	1	1		1	6	7	13	3	4	7	7	7	14	13	22	35	13	32	45	22	41	63	65	114	179
17-18													1	2	3	2	6	8	3	2	5	2	17	19	8	27	35
18-19 and over													1		1	1	3	4	4	5	9	3	9	12	9	17	26
Totals by grades	1,204			926			698			464			383			193			116			104			4,088		
		1,148			966			829			672			495			404			250			202			4,966	
			2,352			1,892			1,527			1,136			873			507			366			306			9,054
Below normal age	13			4			3			7			1			2			1			11			42		
		25			18			9			7			5			5			11			13			93	
			38			22			12			14			6			7			12			24			135
Normal age	531			241			194			92			93			45			33			46			1,275		
		562			314			241			188			140			125			73			68			1,711	
			1,093			555			435			280			233			170			106			114			2,980
Above normal age	660			681			501			365			289			146			82			47			2,771		
		561			634			579			477			350			274			166			121			3,162	
			1,221			1,315			1,080			842			639			420			248			168			5,935

TABLE IX*b*.

Distribution of Colored Pupils in Secondary Schools by Ages and Grades, June 30, 1912.

Showing also for each grade and for totals by ages the number of pupils below normal age, of normal age, and above normal age (retarded) for the grade. Number of normal age inclosed between the horizontal lines in body of tables.

Ages.	First Year.			Second Year.			Third Year.			Fourth Year.			Total by Ages.		
	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.	Boys.	Girls.	Totals.
13-14	5	11	16										5	11	16
14-15	18	31	49										18	31	49
15-16	16	48	64	4	13	17	1	1	2				21	62	83
16-17	30	50	80	13	32	45	4	9	13	0	6	6	47	97	144
17-18	17	29	46	10	28	38	8	19	27	3	14	17	38	90	128
18-19	11	17	28	8	24	32	8	23	31	4	23	27	31	87	118
19-20		3	3	1	12	13	4	14	18	8	3	11	13	32	45
20-21		1	1		2	2				5	3	8	5	6	11
21 and over										1	2	3	1	2	3
Totals by grades	97	190	287	36	111	147	25	66	91	21	51	72	179	418	597
Below normal age	5	11	16	0	0	0	1	1	2	0	6	6	6	18	24
Normal age	34	79	113	17	45	62	12	28	40	7	37	44	70	189	259
Above normal age	58	100	158	19	66	85	12	37	49	14	8	22	103	211	314

TABLE IX*c*.

Showing number of colored pupils below normal age for the grade, of normal age, above normal age (retarded), and the corresponding rates per cent, for each grade of the elementary and the secondary schools, June 30, 1912, based on totals from Tables IX*a* and IX*b*.

Grades.	Number of Pupils, June 30, 1912.	Number of Pupils.			Per Cent of Pupils.		
		Below Normal Age.	Normal Age.	Above Normal Age.	Below Normal Age.	Normal Age.	Above Normal Age.
Elementary—							
1st Grade	2,352	38	1,093	1,221	1.6	46.5	51.9
2nd Grade	1,892	22	555	1,315	1.1	29.4	69.5
3rd Grade	1,527	12	435	1,080	0.8	28.5	70.7
4th Grade	1,136	14	280	842	1.2	24.6	74.2
5th Grade	878	6	233	639	0.7	26.6	72.7
6th Grade	597	7	170	420	1.2	28.5	70.3
7th Grade	366	12	106	248	3.3	28.9	67.8
8th Grade	306	24	114	168	7.8	37.3	54.9
Secondary—							
1st Year	287	16	113	158	5.6	39.3	55.1
2nd Year	147	0	62	85	0.0	42.2	57.8
3rd Year	91	2	40	49	2.2	44.0	53.8
4th Year	72	6	44	22	8.3	61.1	30.6
Totals	9,651	159	3,245	6,247	1.6	35.7	64.7

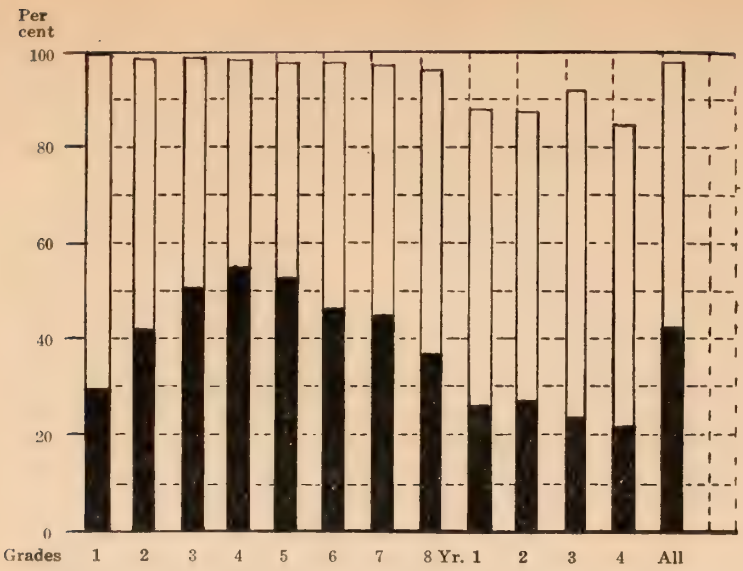

FIG. 4. Graphical illustration of Table VII*c*. Black portions of the columns show per cent of white pupils in each grade of elementary and secondary schools on June 30, 1912, who were retarded, that is, over age for the grade; white portions of columns show per cent of normal age pupils; the space above the top of each column to the 100 per cent line indicates per cent of pupils below normal age. The column at the right shows similar rates per cent for the total number of white pupils in all schools.

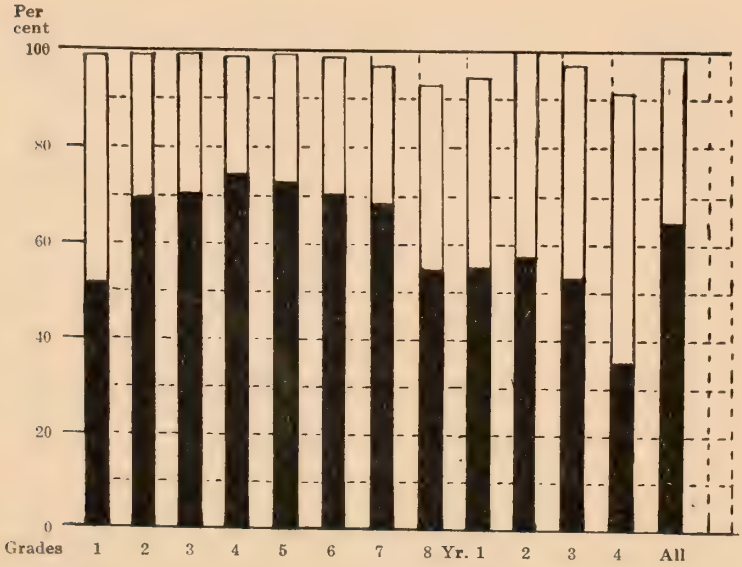

FIG 5 Graphical illustration of Table VIII*c*. Black portions of the columns show per cent of colored pupils in each grade of elementary and secondary schools, June 30, 1912, who were retarded—that is, over age for the grade; white portions of columns show per cent of normal age pupils; the space above the top of each column to the 100 per cent line indicates per cent of pupils below normal age. The column at the right shows similar rates per cent for the total number of colored pupils in all schools.

The story which these figures tell is of profound interest, but lack of space in this report prevents an analysis of these statistics. Nevertheless, I must call attention to the striking difference between the conditions in the white schools and those in the colored schools, as shown by Figures 4 and 5. Owing to the lack of statistics concerning repeaters, we are not able to say how much of this retardation is due to repeating.

Special Classes.

Twenty-two special or ungraded classes were in operation during the year. One of these was for epileptic children; the rest were for backward and indifferent pupils. The work in these classes is of the highest importance: it needs to be developed further. There are many sub-normal children whose mental development is so extremely low that they cannot be taken into these special classes. I recommend the formation of one or more classes for pupils of this kind; and I am of the opinion that the co-operation of the Psychiatric Department of the Johns Hopkins Hospital could be easily obtained.

Improvement of Teachers in the Service.

Baltimore teachers have ever shown a desire for self-improvement. Reading circles, study clubs, normal classes, lectures at teachers' associations, and courses at colleges have always found responsive patronage among the teachers of this city. The year just closed was no exception. Never before has the Department of Education offered so many normal extension courses. I regret that no definite statistics covering teachers' activities along these lines are available.

Notwithstanding this general attitude of our teachers, the chances of having a single class taught by an unprogressive teacher should be reduced to a minimum. With this end in mind, and at the solicitation of many good teachers, I respectfully suggest that the Board of School Commissioners establish a rule requiring some professional study each year of all teachers in the service.

Teachers' Salaries.

The very generous increase in the salaries of elementary teachers appears to have had a splendid moral effect. The backbone of the system lies in the lower grades. Teaching in these grades should be made as attractive as in the higher positions.

Any method of estimating what a teacher is worth to a system by standards other than classroom efficiency and length of service is unwise. There is no invariable relation between scholarship and teaching ability; it happens often that the better scholars are the poorer teachers. But no teacher has ever been so good that scholarship failed to improve him. It is far better to have a fairly high collective efficiency of the teaching force than merely individual cases of extremely high efficiency. Moreover, there is not much danger of overpaying any teacher who is worth keeping at all.

School Accounting.

If there is ever to be a science of pedagogy based upon a body of knowledge which is accepted as true, we shall have to keep better and more complete records. Our monthly reports will have to be remodeled in conformity with the standard forms published by the United States Commissioner of Education. We need to have statistics showing how many pupils enter our classes every year, what progress they make, and why they leave. In this way we shall be able to measure the immediate effect of the system. Its ultimate effect can be demonstrated by time alone; we cannot wait for the result of that test. No one claims that the system is perfect or ever will be. We need to progress; and we can make saner progress when guided by a fixed body of knowledge than when acting merely upon opinion.

In order to obtain this body of facts as rapidly as we can, I would suggest the establishment of a

Bureau of Research and Statistics.

We have been very fortunate in having one of our principals available for research work since February. The results of one of his studies, on the arithmetical abilities of school children, is appended to this report. To the best of my knowledge this is the first time that such a study has been made in any school system by a statistician regularly attached to that system.

Baltimore can afford to be the pioneer in establishing, as a permanent part of its system, a Bureau of Research and Statistics.

Another indispensable adjunct to a business administration is the

Central Warehouse.

Under its present able management, the storage warehouse has been of great service. It has been in operation too brief a period to have reached as high a degree of efficiency as it will reach in the future. It requires time to organize and systematize a work so large and complex as the distribution of all books and supplies used in a large school system.

Other Activities at Work in the Schools.

The co-operation between the Board of School Commissioners and the Public Athletic League and the Children's Playground Association is very encouraging and has resulted in much good to teachers and pupils. The work of these two organizations in the schools and with school children has grown enormously. At present the gymnasiums in the elementary schools and in the high schools are in use almost every evening. The games between the soccer teams of the Public Athletic League have become very popular. They attract large numbers of parents to the parks.

The increasing interest of parents is clearly shown by the growing number of parents' and teachers' clubs and by their active participation in school affairs.

REPORT OF CHARLES A. A. J. MILLER.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: In the accompanying reports from the principals of the various secondary schools and the Training School will be found a more or less extensive account of the needs, activities, and aims of said schools. Owing to my brief official connection with these schools, it would be presumptuous on my part either to criticise their work or to outline a different policy for their conduct. From what I have observed, I am free to say that principals and teachers have labored arduously in the promotion of the very best interests of their pupils. Let me call your attention to some of the leading topics discussed and recommendations made in the several reports:

Suggested improvements in regard to the division of the curriculum into courses.

Need for rapid completion of the Polytechnic building.

Splendid records of the graduates of the Polytechnic Institute.

Heads of departments in the high schools.

Modification of the commercial course in the high schools.

Good results arising from the change of a five-period day to a six-period day.

Effect of general assemblies.

Value of libraries to the schools.

Addition of household arts to the course of study.

Co-operation between the girls' high schools and the Peabody Institute in reference to a musical course.

Better accommodations for the Colored High School.

Salary scale for the faculty of the Colored High School.

Work of the Parents' Club in connection with the Colored High School.

Administration of the Colored High School to be such as to bring it in closer service to the community.

Remarkable attendance in the Colored High School.

Courses of study in the Training School.

Distribution of graduates of Training School in the service.

A central building in which most of the practice work of Training School students is to be done.

Assignment of but one room instead of two to each teacher of practice.

Changes in regard to the number and qualifications of high school graduates to be admitted to the Training School.

My endeavors in the coming year will be directed towards obtaining:

Better housing facilities for the Colored High School.

A salary scale for the faculty of the Colored High School.

A better salary scale for the Baltimore City College and Baltimore Polytechnic Institute.

A permanent, well-equipped home for the Teachers' Training School.

An extension of the work in household arts in the Eastern and Western High Schools.

A greater *esprit de corps* among the faculties of all the secondary schools.

A stronger school spirit among the pupils of each secondary school.

More interest on the part of the teachers in the personal welfare of their pupils.

Greater co-operation between pupils and teachers.

Very truly yours,

CHARLES A. A. J. MILLER,
Second Assistant Superintendent.

REPORT OF JOSEPH C. HANDS.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: Since there are twenty-seven schools, about four hundred teachers and approximately sixteen thousand pupils under my supervision, it is manifestly impossible for me to make a complete report in the short time which has elapsed since my appointment as one of the Assistant Superintendents. The greater part of my time has been taken up in studying existing conditions and in establishing those finer personal relations which should exist between the supervisor and his teachers. I am satisfied that success in the highest sense cannot be reached without mutual respect and confidence. Help and sympathetic guidance are what the teachers need after several years of unrest, and supervisors must be ever ready to give all assistance in the kindliest spirit and in the simplest manner.

The teachers have been encouraged to discuss freely the educational problems arising in their classrooms without fear of being considered unsatisfactory if they find it impossible to solve all of them. With the overcrowded curriculum and the ever-increasing demand for statistics that are needed to make an intelligent study of conditions, there is great need of these discussions in order that the theoretical side of the work may not overshadow the practical. My constant aim has been to be the inspirational head of my district so that teachers and pupils may be filled with a zeal for better things. Without this inspiration and encouragement and the interest arising therefrom, teaching would lose much of its charm and become mere drudgery.

The attitude of the teachers toward the pupils and toward the work has received much of my attention, since I know that teachers who love their pupils and love their work rarely fail to secure the hearty co-operation of pupils and parents. I find that parents will unhesitatingly second the efforts of those teachers who win their pupils through interest in work. It is one of the professional duties of the teachers to keep in friendly touch with the parents without constantly nagging them about the petty details which belong to the legitimate duties of the classroom. One of the most pleasing features of the year's work has been the gradual improvement of some of the teachers who have finally realized the importance of parental co-operation.

There is an increasing tendency among the teachers to train their pupils how to use books. The traditional teacher who required her pupils to repeat verbatim the words of the text-book is not to be found. Instead of this we find the pupils handling the subjects topically and giving thoughtful statements. The abundant supplementary reference material in the schools and elsewhere has rendered excessive memory training unnecessary, and pupils who are encouraged to make a proper use of this material are learning to do things in the same manner in which they will do them when they come into the practical affairs of life. Pupils taught in this manner develop power to do and are interested, alert and self-reliant.

Notwithstanding all our efforts to grade properly, pupils of varying abilities and attainments are placed together in large classes without giving the teachers time to devote to individuals. It is useless to suggest small classes with many special classes for pupils of low mentality because it is impossible to provide extra teachers and classrooms. The plan of handling the class in approximately two equal sections with the teacher devoting about one-half her time to each has some advantages, but it has not solved the problem. Since it is impossible to lessen the number of pupils assigned to a teacher, some practical plan

of reaching the individual should be devised. Unless some other more satisfactory plan can be suggested, I would recommend the dismissal of those pupils whose effort and progress are satisfactory one-half hour before the noon intermission so that the teacher may coach those pupils who need special help. While some objections might be made to such a plan, I am satisfied that its advantages will be apparent to those teachers who find it impossible to reach many individuals.

The very irregular attendance of the pupils in the colored schools seriously interferes with the work, especially in the lower grades, where it is necessary to assign a large number of pupils in order to secure the average attendance to retain the teacher. This problem of attendance, both as to punctuality and regularity, has been made a subject of deep concern and study. Faculty meetings have been held in which the teachers were urged to visit the homes of the pupils and thereby create the feeling that lateness and irregular attendance are bad habits and become hindrances in all that means success in life. Parents' clubs have also been organized and are doing splendid work in educating the parents of delinquent children. In one of the schools an attendance committee of pupils has been appointed in each class above the first to visit the homes of all absent pupils and to report to the teacher the results of their visits. Since these visits are made outside of school hours, many parents are reached who cannot be seen by the attendance officers. Not only has there been a decided improvement in absence and lateness, but there has also been general improvement on the part of the members of the committees.

The work of the first grade classes is interfered with during the first few weeks of school on account of the irregular attendance of many of the little ones who have recently been vaccinated. Besides this, much of the teacher's time is taken up in looking after those whose arms are sore. It would be a good plan to require all children to be vaccinated at five years of age and thus save them and the schools much annoyance.

Special commendation is due the heads of schools whose duties have been considerably increased since the change in the system. They have given every evidence of having kept in close touch with conditions in their schools; and, despite the increase in clerical work, they are performing their work of supervising the teachers with a great deal of tact. Teachers and principals seem to be planning to make the coming year one of the best in work for the pupils and also in professional progress.

Respectfully submitted,

JOSEPH C. HANDS,
Assistant Superintendent.

REPORT OF ROBERT W. ELLIOTT.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: I herewith submit my report of District No. 1.

There are in District No. 1 twenty-six school buildings. Twenty of these (including one annex) enroll white pupils. The remaining six (also including one annex) enroll colored pupils. It has been my purpose during the past six months to acquaint myself with the prevailing conditions, to discover the problems that stand out most prominently and to plan for their solution. A study of the social conditions of the district has been undertaken with a view of gaining a more intelligent conception of the work in hand. Besides all this, it has been necessary to make the acquaintance of nearly four hundred teachers, forty of whom are still classed as substitutes. I desire at this point to thank all these good people for the warm reception that has been given me throughout the district, and for the hearty co-operation that has been manifest in every school.

I have been impressed from the very outset by the crowded condition of the schools in the western and the northwestern suburbs. At Calverton, Walbrook, and at Forest Park, there has been an urgent need for increased accommodations for several years. At the two points last named, we have had the good fortune to see this lack supplied, and a handsome addition of eight rooms at School No. 63 and another of ten rooms at School No. 64 have this month been formally opened for class work. At Forest Park, this will provide room sufficient for the needs of many years to come. This is not the case at Walbrook, for the September enrollment promises to

be so large that we fear lest we may not have sufficient class-rooms to meet the requirement for next year. Thus we see a crowded condition still confronts us at this point as well as at Calverton.

At Walbrook and at Calverton there is also a lack of facilities for instruction in manual training and cookery. In order to secure this training, the pupils must go to centers that are at least one mile distant from the home schools. It is, therefore, needful that new centers be established at School No. 63 in the rooms provided for this purpose as soon as the funds are available.

Crowded conditions do not prevail in the case of the down-town schools, but in nearly every case, there are indications of a slowly decreasing enrollment.

The disciplinary classes throughout the district have proved a valuable adjunct. We have been able, however, to reduce the number of such classes to three.

The class for feeble-minded children at School No. 21 deserves particular mention. Here from twelve to fifteen unfortunate pupils are offered opportunities for special help not possible in a regular class.

One of the most serious problems of this district is the condition of our schools for colored children. The school buildings at our disposal are not large enough to care for the rapidly increasing population. In two buildings (Schools Nos. 103 and 112) we have been compelled to organize a number of half-time classes. And at No. 112, besides this inconvenient arrangement, there are four rooms each occupied throughout the day by two full classes. Two other buildings are located in most undesirable neighborhoods. At two other points, several hundred pupils are housed in rented buildings that are not well adapted for school work, and that are almost a menace to the health of the children and teachers attending from day to day. It is to be hoped that we may soon be able to relieve this deplorable condition. At least two additional buildings

will be necessary to accomplish this result. In spite of these difficulties, a faithful band of teachers has been very painstaking in its efforts and has been able to secure good results.

In all the other schools of the district, normal conditions prevail. The pupils are making progress at an average rate and are happy and contented in their work.

Respectfully submitted,

ROBERT W. ELLIOTT,
Assistant Superintendent.

REPORT OF ROWLAND WATTS.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: I herewith submit a brief and somewhat general preliminary report of District No. 2, based upon quite careful study since February, 1912.

While there is need of two or three new buildings, better equipment and furnishings in some, and considerable improvement in playgrounds and yards in many others, the material resources are, upon the whole, quite adequate.

The teachers have manifested a commendable spirit of cooperation in all our plans for the improvement of our schools. They have acquiesced cheerfully in all our suggestions for professional development and self culture. Not the least among the comforting signs of educational progress is the widespread interest in the moral and physical well-being of the children.

The large classes made necessary by lack of schoolrooms and material equipment produces an unfortunate fixity of course and regularity of progress. We are compelled to consider, primarily, a sort of average child sprung from the imagination of our educational forefathers but which does not at present exist in our city. The one child for whom the course of study is arranged may not be in any particular class, while the many quite different children fill every class. The result of this Procrustean theory is to provide fairly well for a large number and turn them out good average men and women; but there remain the children of slower as well as those of more rapid mental processes to be provided for. Aside from any moral obligation, the dictates of sound financial reasoning con-

strain us to consider these exceptional children. Means must be devised to prevent repeating years at the expense of the city as well as to make provision for the unhindered advance of the bright and the diligent. Like the ancient cynic, these last merely request us to get out of their sunlight; but the former need special classes. The revenue saved by eliminating repeaters and the destructive book strap would soon supply the new buildings and improved equipment so much desired.

District No. 2 has some special classes for slow children and two preparatory schools where a limited number of brighter children may save a year. This saving of a year is more or less incidental as the primary intention seems to have been to offer a new course based especially upon Latin, German or French, and algebra. It has been abundantly demonstrated that by a proper grading in the larger schools the year may be easily saved and the child enter the first year high school. The real question to be considered, therefore, is whether the preparatory classes covering a modified seventh and eighth grade and certain high school credits which make it possible to complete the high school course in three years is the best course for the child. If we grant that such is the case the establishment of a ninth grade would be the part of wisdom. It would bring the advantages of a more extended course to a larger number of our children at a much less cost. Many would take the present preparatory course with such modifications as would fit them to enter the second year of the high school, while others might take our present course with certain vocational studies added, and thus enter life with a much better equipment; and all these advantages would leave our conventional twelve-year course undisturbed. While we would deprecate the advancement of any child in the first three grades in less than one year for each grade, we are thoroughly convinced that the grades from four to nine, inclusive, might easily be completed in four years, thus saving two years for the brighter children.

We also find a large number of sub-normal children who, under the fetish of regular requirements for advancement for all children, remain two of more years in each of the two lower grades, who might with much more profit to themselves and the community advance regularly along easier lines until they reach the time when they must take up the work of life with whatever preparation we may have been able to give them.

Another patent need is a special school, preferably in the suburbs, to provide for the small number of unruly children who are not amenable to ordinary discipline. The present Parental School might be so enlarged in its scope as to include these disciplinary classes. The mentally deficient and the epileptic children should be cared for in an asylum where love and tenderness might have full sway.

Respectfully submitted,

ROWLAND WATTS,
Assistant Superintendent.

REPORT OF A. J. PIETSCH.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: I herewith submit my report on District No. 3:

In February, 1912, when the new plan of supervision was established, I was placed in charge of this district. It comprises that part of Baltimore bounded by Charles street, Chase street, the waterfront, Canton and East avenues, and includes twenty-nine schools and one branch school. Of these, twenty-six are schools for white children and three schools, together with the branch, are colored in clientele. The district consists of six former groups, each of which had been directed largely in accordance with the principal's ideas, resulting in marked difference, both in matters of discipline and management and in methods of instruction. To syncretize these various forms of management and to establish uniformity along the best pedagogic lines was the first great task set me. This has, in a measure, been accomplished, but not without the earnest and sympathetic co-operation of the twenty-six persons in charge of the schools, and my obligation to these principals and vice-principals for their valued assistance must here be acknowledged. Nor was this much accomplished without the aid of the large corps of faithful and energetic teachers in the district.

When the district was given into my charge, the feeling of insecurity and dread had not been fully allayed, and in many schools, owing to the radical changes which had been made in the management, there was fear of as radical an upheaval among the teachers. But, once convinced of the friendly attitude of the present administration and of its firm intention to be partial to none but just to all, the teaching force,

as a whole, laid by their fears and dread and were a unit in their endeavors to prove their faith, their zeal and their loyalty to the cause of education. The result is the re-establishment of thoroughness in teaching and uniformity in method, which bids fair to restore accuracy and rapidity of reasoning.

During the past session, it has been barely possible to become more than acquainted with the schools, their faculties, the pupils generally, and their needs.

One of the problems growing out of the new conditions is that of the authority of the vice-principal. Present conditions indicate that they will be granted as large and independent a control of the general management of the school as is possible under the Assistant Superintendent. Along with this problem is that of discipline. Without the power to do aught but chide or, at the worst, suspend, it is almost impossible to expect good discipline. I would recommend that corporal punishment be restored in the schools, or at least in disciplinary classes. And this would call for the establishing of such classes, segregating the mentally and physically deficients from the moral delinquents.

Another problem is the newly-arrived immigrant. Within the district are two classes limited to such children. As soon as they learn English, they are classified and transferred to the proper grade.

In conclusion, I cannot refrain from calling attention to the crowded condition of many of the schools in this district. The poor ventilation results in many cases of illness and this may often be the result of carelessness or ignorance of the ordinary regulations of health. I therefore recommend that there be issued either by the Health Department or by the Supervisor of Buildings a bulletin on Hygiene of the Classroom, with especial reference to classroom ventilation.

Respectfully submitted,

A. J. PIETSCH,
Assistant Superintendent.

TABLES

ACCOMPANYING THE REPORT

OF THE

SUPERINTENDENT

TABLE X*a*.

Time Occupied in Accomplishing Grade Work.

	No. Pupils in 4 Months or less than 4 Months.	No. Pupils in 5 Months.	No. Pupils in 6 Months.	No. Pupils in 7 Months.	No. Pupils in 8 Months.	No. Pupils in 9 Months.	No. Pupils in 10 Months.	No. Pupils in 11 Months.	No. Pupils in 12 Months.	No. Pupils in 13 Months.	No. Pupils in 14 Months.	No. Pupils in 15 Months.	No. Pupils in More than 15 Months.	Total.	No. Pupils in Less than 10 Months.	No. Pupils in 10 Months.	No. Pupils in More than 10 Months.
Group A.....	22	33	12	11	12	27	1436	6	21	1	7	267	231	2086	117	1436	533
" B.....	53	62	8	11	19	24	1251	1	15	2	1	254	360	2061	177	1251	633
" C.....	6	42	25	28	6	16	1493	42	12	3	8	227	377	2285	123	1493	669
" D.....	34	162	16	13	10	10	1922	4	3	9	2	419	246	2850	245	1922	683
" E.....	5	239	7	28	28	8	1619	.....	3	3	7	201	335	2483	315	1619	549
" F.....	5	75	2	1	6	7	1155	1	1	2	2	256	339	1852	96	1155	601
" I.....	9	94	13	7	3	5	1538	2	3	1	2	384	138	2199	131	1538	530
" J.....	10	32	16	6	10	11	1793	8	4	7	8	495	308	2708	85	1793	830
" K.....	16	140	16	25	32	20	1508	11	9	20	18	113	219	2147	249	1508	390
" M.....	10	25	3	3	10	11	1098	1	6	1	1	360	126	1655	62	1098	495
" N.....	14	84	3	7	1	9	1495	3	5	11	16	462	348	2458	118	1495	845
" O.....	8	51	3	3	21	2	1239	.....	3	1	2	87	211	1631	88	1239	304
" P.....	6	81	2	10	15	13	1264	10	4	4	6	185	167	1767	127	1264	376
" Q.....	17	102	20	17	14	36	1760	2	7	5	6	152	232	2370	206	1760	404
" R.....	22	90	19	10	10	46	1305	29	1	15	1	280	256	2084	197	1305	582
" U.....	6	163	26	3	19	32	1322	4	2	1	4	141	147	1870	249	1322	299
" V.....	6	160	1	4	.....	49	1698	.....	.....	1	.....	255	166	2340	220	1698	422
" W.....	8	38	8	7	14	16	1005	4	12	14	13	222	132	1493	91	1005	397
" X.....	8	112	2	20	9	33	1056	.....	.....	2	3	431	144	1820	184	1056	580
" Y.....	10	48	10	18	22	18	1254	8	31	.....	2	441	165	2027	126	1254	647
" Z.....	25	143	7	9	9	22	1136	4	12	1	4	266	127	1765	215	1136	414
Totals.....	300	1976	219	241	270	415	29347	140	154	104	113	5898	4774	43951	3421	29347	11183

Note—The compilation by groups, recently abolished, is retained in this report to complete a series of years (see also Table X*b* following).

TABLE X*b*.

Time Occupied in Accomplishing Grade Work.

Number of Months Occupied in Attaining Promotion to Next Grade.	Number of Pupils Promoted.	Sub-Totals.	Per Cent based on Total Number Promoted.
4 months and less	300		
5 "	1,976		
6 "	219		
7 "	241		
8 "	270		
9 "	415		
Less than normal time		3,421	7.8
10 months	29,347		
Normal time		29,347	66.8
11 months	140		
12 "	154		
13 "	104		
14 "	113		
15 "	5,898		
More than 15 months	4,774		
More than normal time		11,183	25.4
Totals	43,951	43,951	100.0

TABLE XI.

Showing the number of Pupils and Teachers in the Public Schools at the time of making the report each year, from the year 1829, when the first public school was opened, to the year 1910, inclusive. This statement does not include Night Schools.

Date.	Teachers.	Pupils.	Date.	Teachers.	Pupils.
1829	3	269	1871	559	24,479
1830	5	402	1872	581	25,092
1831	5	627	1873	558	26,663
1832	5	640	1874	626	27,634
1833	5	544	1875	672	29,942
1834	8	859	1876	717	31,071
1835	8	747	1877	734	32,523
1836	8	814	1878	784	34,002
1837	8	659	1879	798	35,595
1838	8	675	1880	799	35,297
1839	16	1,126	1881	824	35,630
1840	22	1,834	1882	826	35,639
1841	27	2,331	1883	855	37,546
1842	28	2,464	1884	893	38,618
1843	30	2,669	1885	930	39,828
1844	38	3,366	1886	972	39,779
1845	52	4,313	1887	994	41,199
1846	65	5,087	1888	1,119	46,521
1847	90	6,439	1889	1,187	48,850
1848	100	6,696	1890	1,244	50,899
1849	110	6,763	1891	1,301	52,543
1850	119	7,093	1892	1,382	54,406
1851	138	8,011	1893	1,464	57,048
1852	175	9,081	1894	1,557	59,808
1853	186	9,447	1895	1,614	61,271
1854	207	9,717	1896	1,719	63,087
1855	217	10,588	1897	1,794	64,602
1856	238	11,441	1898	1,827	65,176
1857	245	11,269	1899	1,802	65,289
1858	256	11,587	1900	1,676	64,720
1859	267	11,750	1901	1,647	64,918
1860	284	13,186	1902	1,679	66,399
1861	295	13,424	1903	1,689	67,368
1862	311	13,888	1904	1,692	68,093
1863	333	14,874	1905	1,635	67,964
1864	343	15,319	1906	1,657	69,446
1865	366	15,957	1907	1,686	68,723
1866	402	17,550	1908	1,684	68,926
1867	490	22,073	1909	1,682	68,120
1868	537	21,903	1910	1,723	67,508
1869	540	23,552	*1911	1,696	62,652
1870	549	23,898	1912	1,739	63,323

*Six months only, January to June. Prior to 1911, annual reports covered the calendar year; subsequent to 1911, they cover the scholastic year, September to June inclusive.

TABLE XII—KINDERGARTENS.

KINDERGARTENS.	No. of Classes.	No. of Teachers.	No. of Assistants.	No. of Pupils Belonging June 30, 1912.	Average No. Belonging for the Year 1911-12.	Average Attendance for the Year 1911-12.	Percentage of Attendance for the Year 1911-12.	Total Enrollment for the Year 1911-12.		No. Belonging Inc. Temporary Withdrawals June 30, 1912.
								Boys.	Girls.	
School No. 3	1	1	1	38	37	31	83	28	32	44
" 23	1	1	1	28	35	30	85	37	24	37
" 24	1	1	1	27	34	26	76	27	32	32
" 25	1	1	1	24	34	28	82	24	19	42
" 33	1	1	1	42	34	28	82	25	21	42
" 76	1	1	1	39	40	36	90	30	41	50
" 43	1	1	1	37	38	33	86	22	23	45
" 93	1	1	1	48	45	37	82	30	30	58
" 5	1	1	1	41	41	34	83	20	37	51
" 16	1	1	1	45	42	35	83	28	28	45
" 20	1	1	1	31	34	27	79	24	24	41
" 53	1	1	1	40	40	33	83	35	35	61
" 4	1	1	1	45	51	43	84	29	37	54
" 9	1	1	1	44	42	36	86	24	26	44
" 19	1	1	1	43	42	31	74	28	31	49
" 11	1	1	1	48	40	35	88	35	30	48
" 31	1	1	1	25	25	21	84	23	19	33
" 79	1	1	1	36	29	26	89	21	23	36
" 55	1	1	1	46	40	33	83	35	24	46
" 106	1	1	1	32	29	26	90	24	27	51
" 112	1	1	2	58	57	49	86	40	56	84
" 113	1	1	1	31	25	20	80	25	23	40
Totals	22	22	23	848	834	698	84	614	642	1,033

TABLE XIII—UNGRADED CLASSES.

UNGRADED CLASSES.	No. of Classes.	No. of Teachers.	No. of Pupils Belonging June 30, 1912.	Average No. Belonging for the Year 1911-12.	Average Attendance for the Year 1911-12.	Percentage of Attendance for the Year 1911-12.	Enrollment for the Year 1911-12.		No. Belonging Inc. Temporary Withdrawals June 30, 1912.	
							Boys.	Girls.	Boys.	Girls.
School No. 3	1	1	6	10	7	70	26	.....	14	.....
" 25	1	1	17	24	21	88	33	24	16	6
" 42	1	1	12	14	12	86	23	.....	10	.....
" 35	1	1	9	10	9	90	12	.....	11	.....
" 76	1	1	10	12	11	92	14	4	11	1
" 93	1	1	17	15	14	93	27	.....	18	.....
" 83	1	1	14	15	10	67	25	.....	15	.....
" 71	1	1	15	12	12	100	25	.....	18	.....
" 20	1	1	16	14	12	86	16	6	14	2
" 54	1	1	12	12	10	83	12	.....	12	.....
" 29	1	1	12	11	9	82	7	6	7	6
" 22	1	1	8	8	7	88	17	.....	9	.....
" 48	1	1	6	7	5	71	6	.....	6	.....
" 98	1	1	12	11	9	82	18	.....	15	.....
" 11	1	1	12	6	5	83	20	.....	12	.....
" 14	1	1	12	10	8	80	16	.....	12	.....
" 21	1	1	11	11	10	91	8	3	8	3
" 81	1	1	7	11	9	82	15	.....	9	.....
" 58	1	1	11	9	7	78	28	.....	11	.....
" 109	1	1	7	11	10	91	23	.....	10	.....
" 110	1	1	7	13	8	62	20	1	12	.....
" 118	1	1	8	13	10	76	31	.....	14	.....
" 101	1	1	9	9	7	78	11	.....	11	.....
Totals	22	22	250	268	222	83	433	44	275	18
Grand totals	.....	.....	.....	.....	.....	.....	477		293	

TABLE XIV.

Preparatory Classes.

Preparatory Classes.	Number of Classes.	Number of Teachers.	Avg. No. of Pupils Belonging.
School No. 1	7	8	189
" 49	10	10	298
" 52	5	5	123
" 62	1	1	34
Totals	23	24	644

TABLE XV.

Manual Training Centers.

School.	Instructor.	Schools.	Grades.								
			First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Totals.
No. 2.....	Samuel L. Krotee.....	2, 42, 93.....	....	....	....	....	23	93	88	27	231
No. 7.....	Elizabeth Swick.....	7, 40, 43, 71, 77, 93.....	....	....	....	....	....	....	151	118	269
No. 9.....	Charles A. Pettitt.....	1, 9, 75, 91, 95.....	....	....	....	....	....	....	186	94	280
No. 17.....	Florence G. Bangert.....	44, 70, 72, 84, 92.....	....	....	....	....	....	....	154	92	246
No. 45.....	Elbert Hall.....	45.....	....	....	....	19	17	31	28	10	105
No. 51....	Edna M. Johnson.....	51.....	....	....	....	....	....	....	41	31	72
No. 58.....	Raymond Bealer.....	55, 57, 59.....	....	....	....	....	24	83	33	27	167
No. 59.....	Samuel L. Krotee.....	59.....	....	....	....	....	....	14	....	16	30
No. 60.....	George P. McCeney.....	60.....	....	....	....	....	....	....	35	10	45
No. 64.....	Raymond Bealer.....	64.....	....	....	....	....	....	31	23	25	79
No. 74.....	Edna M. Johnson.....	52, 53, 54, 74, 80.....	....	....	....	....	....	....	133	82	215
No. 76.....	Elbert Hall.....	76.....	3	10	16	21	20	24	11	....	105
No. 79.....	R. Milton Hall.....	14, 49, 61, 79.....	....	....	....	....	....	....	153	137	290
No. 81.....	George P. McCeney.....	60, 62, 65, 78, 81.....	....	....	....	....	....	....	148	101	249
No. 98.....	James B. Jones.....	30, 48, 66, 68, 98.....	....	....	....	....	....	77	132	51	260
No. 99.....	M. Louise Search.....	80, 84, 95, 99.....	....	....	....	....	....	19	195	80	294
No. 107.....	Joseph C. Briscoe.....	100, 107, 116.....	....	28	38	52	22	5	12	....	137
No. 108.....	Lloyd A. Clark.....	101, 105, 108, 111.....	....	....	....	82	72	37	24	18	253
C. H. S....	J. Clarence Chambers.....	103, 110, 112, 113, 116, 118..	....	....	....	....	....	109	62	59	230
*No. 47....	Emma Fowler.....	47.....	....	....	....	....	104	142	45	28	319
*No. 106....	Winfort Braxton.....	106, 108.....	68	134	106	34	12	18	9	13	394

*Schools in which manual training is emphasized, pupils of various grades moving to and from a room especially equipped for the purpose on schedule time.

TABLE XVI.

Cookery Centers.

School.	Instructor.	Schools.	Grades.								
			First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Totals.
No. 2	S. Alberta Hartman	2, 42	....	....	....	44	60	100	34	27	265
No. 7	Olive Schureman	2, 7, 40, 43, 71, 83	....	....	....	....	....	90	113	35	238
No. 17	Elizabeth M. Male	35, 44, 70, 72, 84, 92	....	....	....	....	....	143	139	....	282
No. 45	Marjorie Woodside, substitute.	45	....	....	....	13	9	23	30	17	92
No. 47	Lucretia A. Hilcken	47	....	....	....	....	135	78	39	39	291
No. 51	Alice Dodge	51	....	....	....	....	....	....	45	44	89
No. 58	Dorothy Eisenbrandt	55, 57, 58	....	....	....	....	47	85	51	....	183
No. 59	Lelia H. Powers	59	....	....	....	....	....	13	12	8	33
No. 60	I. Clair Sansbury	60	....	....	....	....	....	....	21	21	42
No. 64	Dorothy Eisenbrandt	64	....	....	....	....	....	29	27	20	76
No. 74	Alice Dodge	52, 53, 54, 74, 80	....	....	....	....	....	....	210	....	210
No. 75	Helen B. Palen	1, 9, 75, 91, 95	....	....	....	....	....	63	167	14	244
No. 76	Marjorie Woodside, substitute.	76	....	3	21	13	35	13	10	....	95
No. 79	I. Clair Sansbury	14, 49, 61, 79	....	....	....	....	....	....	175	12	187
No. 81	Lelia H. Powers	62, 63, 65, 78, 81	....	....	....	....	....	....	187	15	202
No. 85	Agnes S. Hunsicker	85, 94, 99	....	....	....	....	....	122	71	26	219
No. 97	Carolyn Hamilton, substitute.	27, 71, 77, 83	....	....	....	....	....	115	104	9	228
No. 86	Carolyn Hamilton, substitute.	86	....	....	....	....	....	....	15	15	30
No. 98	Carrie M. Thornburg	30, 48, 66, 68, 98	....	....	....	....	....	73	137	31	241
No. 106	Daisy Bailey	106	....	....	....	47	89	43	28	33	240
No. 107	Mary N. Sewell	100, 103, 110, 112, 116	....	....	....	....	....	26	155	63	244
No. 108	Mary E. Toney	101, 105, 108	....	....	....	59	88	63	34	21	265
No. 113	Emma Dorsette	113, 115	....	....	....	....	21	53	33	18	125

TABLE XVII—Recapitulation.

	Boys.	Girls.	Totals.
Normal Schools—			
Teachers' Training Schools	10	184	194
Secondary Schools—			
Number in fifth year classes	.....	6	6
Number in fourth year classes	287	366	653
Number in third year classes	326	462	788
Number in second year classes	482	629	1,111
Number in first year classes	756	883	1,639
Totals	1,851	2,346	4,197
Elementary Schools—			
Grammar Grades			
Number in eighth grade	1,187	1,446	2,633
Number in seventh grade	1,664	1,905	3,569
Number in sixth grade	2,346	2,566	4,912
Number in fifth grade	3,167	3,353	6,520
Number in fourth grade	4,113	4,247	8,360
Totals	12,477	13,517	25,994
Primary Grades			
Number in third grade	4,754	4,818	9,572
Number in second grade	5,237	5,005	10,242
Number in first grade	6,025	5,773	11,798
Number in kindergartens	513	520	1,033
Number in ungraded classes	272	21	293
Totals	16,801	16,137	32,938
Number in Normal Schools	10	184	194
Number in Secondary Schools	1,851	2,346	4,197
Number in Elementary Schools	29,278	29,654	58,932
Grand totals	31,139	32,184	63,323

REPORT OF ATTENDANCE DEPARTMENT.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: Since the school attendance law went into effect (January, 1903) there has been a gradual increase in attendance from about 86 per cent to 90 per cent in 1912. The attendance in Boston last year was 91 per cent. When our large negro population is taken into consideration, Baltimore's attendance compares favorably with that of Boston. There is a steady diminuition of persistent truancy among the white children. This is largely ascribable to the vigilance and promptness of the attendance officers and the corrective work accomplished in the Parental School. This school was established November 15, 1904, and has made a most excellent record. Not only does it handle with marked success the large majority of its pupils, but it also acts as a deterrent to many pupils tempted to truancy, as they realize that persistent truancy may mean a temporary loss of liberty.

The work of the attendance officers deals largely with truants, suspected truants, and irregular attendants of the public schools. However, at the beginning of each school year, parochial schools are notified by circular that the attendance officers will investigate any cases of truancy or irregular attendance that are reported to them by mail. Very few of the parochial schools co-operate by mailing these lists of absentees to the attendance officers. When the attendance officers call at the schools, the cases are reported, but owing to the press of work it is impossible to visit all the parochial schools regularly. If the work in these parochial schools,

with an enrollment of 15,000 children, is to be as carefully done as that of the public schools, it cannot be accomplished by the present force of attendance officers. The enforcement of the new compulsory education law, which raised the age limit two years, will entail a greater amount of work on the Attendance Department in the coming year. To make the work of this Department more effective, I beg to make the following recommendations:

The establishment of a large parental school for colored truants.

The establishment of a new and larger parental school for white truants.

An increase in the number of attendance officers.

The following table shows the work accomplished by the attendance officers during the scholastic year 1911-1912:

SCHOOL ATTENDANCE DEPARTMENT AND PARENTAL SCHOOL, FOR THE SCHOLASTIC YEAR 1911-1912.

Number of cases investigated	45,401
Number of absentees	33,144
Number of truants	3,032
Number of non-attendants put into school	276
Number of special cases	7,942
Number of visits to homes	43,484
Number of visits to schools	7,335
Number refused permits to work	884
Number of magistrate cases	46
Number of prosecutions before the Juvenile Court	76
Number committed to the Parental School	53
Number of prosecutions before the Criminal Court	1

Respectfully submitted,

CHARLES A. A. J. MILLER,
Second Assistant Superintendent, in Charge of Attendance Department.

REPORT OF THE PRINCIPAL OF THE TEACHERS' TRAINING SCHOOL.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: I am sending you the following statement concerning the work of the Teachers' Training School and the Colored Training School:

During the year 1911-1912 the teachers have been at work formulating in considerable detail the course of study of the training schools. A small appropriation for publishing this course would make possible much greater mutual understanding and co-operation.

But little time has been taken for statistical investigations: Two brief studies show some interesting results. Three hundred and forty-six graduates of the Teachers' Training School in service this spring were distributed as follows: Grade I, 89; Grade II, 73; Grade III, 53; Grade IV, 59; Grade V, 29; Grade VI, 18; Grade VII, 8; Grade VIII, 2; assistants to principals, 14; preparatory classes, 5; training school, 2; ungraded class, special class, manual training and high school, 1 each.

A study of the membership of the Teachers' Training School for four years shows that, in a division of the high school graduating classes into four equal groups according to the rank in class of the members, we receive in the training schools seven from the highest quarter to six from each of the second and third quarters and four from the lowest.

A considerable number of books and some equipment have been furnished the Teachers' Training School; but both that

school and the Colored Training School still have many urgent needs. Neither school has practically any laboratory equipment.

A change has been made in the time of giving the medical examinations. Instead of coming at the close of the course they are now given to candidates for admission to the training schools during the senior year of their high school course. This makes it possible to gain during the course the advantages arising from the results of the requirements made in the way of exercise, the removal of adenoids, proper care of the teeth, etc.

In the Teachers' Training School all of the practice, participation and observation work is done in schools scattered throughout the city. There are ten practice centers in eight school buildings. We believe that a better organization would be to have much of this work done in a central building connected with the training school. A part of the work only should be done in other sections of the city.

At present each teacher of practice has charge of two rooms and trains six seniors and seven or eight juniors. This is too great an amount of work and should be reduced by (1) the assignment of one room instead of two to each teacher and (2) by increasing the number of teachers of practice. At present one of the most important grades—the sixth—is not provided for. Too much stress is laid on training for the first grade. Few young teachers are fitted for beginning their work in this important grade, yet over a third of the practice groups are devoted to it.

Since the time when colored teachers were placed in charge of colored schools there has been necessity each year for a number of rooms to be in charge of emergency substitutes because of a lack of properly qualified teachers. This year there has been a sufficient number of training school graduates to fill all positions and to provide for the incidental absence of teachers as well.

In both schools it is time that more consideration be given to the questions of the number and qualifications of high school graduates to be admitted each year. In many cities a certain proportion of vacancies are filled by teachers who have had some years of experience in other school systems. According to the Baltimore plan practically all the new teachers come from the training schools. This means that in June a long list of substitutes is available, many of whom cannot be appointed for many months. These substitutes are used for incidental or day-by-day work until vacancies occur. This experience is very difficult and adds little to the teachers' equipment for the service. As it now is, much of this incidental work is done by emergency substitutes direct from the high schools who have had no training for it. It is probable that this period of waiting and the work required in it deters some of the most promising young women in the high schools from choosing school work and entering the training schools. The most evident remedies would be to put a part of the incidental substituting in charge of experienced teachers and to plan for entering classes in the *Teachers' Training School, in February as well as in September. This would reduce the time of waiting by half a year and would distribute work in the training school course to better advantage.

Respectfully submitted,

FRANK A. MANNY,
Director of the Training of Teachers.

*This plan would not serve in the Colored Training School because there are not enough students to make sections practicable in the junior year.

PAPERS RELATING

TO THE

TEACHERS' TRAINING SCHOOL

FACULTY, 1911-12.

FRANK A. MANNY,
DIRECTOR OF THE TRAINING OF TEACHERS.

Theory Department.

ELIZABETH MONTELL, B. S.,
Special Method in Geography, Nature Study, Construction Work.

FLORENCE KELLOGG, B. S.,
History of Education, Special Method in Language and Grammar.

EDITH GRACE RICE, B. S.,
Special Method in Arithmetic, Physiology, Construction Work.

GRACE H. HARE, A. B.,
Special Method in Reading, Literature, History, Song Singing.

MIGNON LEVIN, B. S.,
Psyschology, Principles of Teaching, Junior Participation.

Assistant Supervisors of Practice Teaching.

CARRIE M. SUMWALT,
FLORENCE M. LAYMAN,
FLORENCE BAMBERGER,
MARY A. PIERCE,
MINNIE LEE DAVIS.

Teachers of Practice Classes.

JULIA F. BECK,
SEVENTH GRADE.

FLORENCE R. BONN,
FIFTH GRADE.

IDA V. FLOWERS,
FIRST GRADE.

HELEN M. JOHNSON,
SECOND GRADE.

ISABELLE M. JOHNSTONE,
FOURTH GRADE.

M. JOSEPHINE KRAGER,
FIRST GRADE.

BLANCHE MacCARTHY,
FIRST GRADE.

ROSALIE OGLE,
FOURTH GRADE.

LIDA L. THOMASON,
THIRD GRADE.

VIRGINIA WIGHTMAN,
THIRD GRADE.

ANNIE C. WILLIAMS,
FIRST GRADE.

Instructors in Special Subjects.

HENRIETTA G. BAKER,—Music.
OLIVIA KEACH, Drawing.
C. F. E. SCHULTZ, Physical Training.
GEORGE M. GAITHER, Tool Work.

COURSE OF STUDY.

Junior Year—Psychology, 3 quarters; History of Education, 3 quarters; Special Method in Arithmetic, 3 quarters; Special Method in History, 1½ quarters; Special Method in Literature, 1½ quarters; Special Method in Nature, 2 quarters; Special Method in Geography, 1 quarter; Special Method in Language and Grammar, 2 quarters; Manual Training, 3 quarters; Drawing, 3 quarters; Music, 3 quarters; Physical Culture, 3 quarters; Participation, 1 quarter.

Senior Year—Principles of Teaching, 2 quarters; Special Method in Arithmetic, 2 quarters; Special Method in History, 2 quarters; Special Method in Reading, 2 quarters; Special Method in Geography, 2 quarters, Special Method in Language and Grammar, 2 quarters; Physiology, 2 quarters; Manual Training, 2 quarters; Song Singing, 2 quarters; Practice Teaching, 2 quarters.

ENROLLMENT FOR THE YEAR.

SEPTEMBER 1911—JUNE 1912.

Number of new pupils admitted during year—		
Boys	2	
Girls	153	
		155
(Seniors, 74; Juniors, 81.)		
Number transferred to Class II, substitutes	7	
Number withdrawn from service	31	
		38
Number of pupils belonging June, 1912		117
Number of pupils in care June, 1912		121
(Seniors, 59; Juniors, 62.)		
Average number of pupils belonging during year		131
Average attendance during year		125
Percentage of attendance for the year based on average number belonging		95

BALTIMORE CITY COLLEGE.

Report of the Principal on Conditions for the Year 1911-1912.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: The work of the school, following established traditions, has been divided into two distinct parts—academic and commercial. In the first department four groups are to be considered—candidates for universities and colleges, candidates for professional schools (law, medicine, dentistry, etc.), candidates for the Teachers' Training School, and students who do not expect to undertake further school work.

For the first two groups, the Baltimore City College fulfills the requirements imposed from above according to the prevailing standards for colleges and professional schools, and quite a creditable number of this year's graduates are enrolled among the students of the institutions referred to; for the third group special training is offered, though it is not, I regret to say, very much sought; and for the next group I think much is to be desired to make the course more helpful and stimulating.

The commercial department has an adequate and efficient course in such branches as form a traditional part of a high school course. I doubt, however, the utility of such subjects as algebra and foreign languages for boys in direct preparation for commercial offices. I think more extended and persistent drills in business uses of English, spelling, letter writ-

ing, commercial and technical terms, and in commercial arithmetic would be better. There might be a special election by these students of one or two foreign languages, say German and French or Spanish, provided their future contemplates an activity enlarged beyond their own country.

I heartily endorse, however, the principle of definite courses which obtains in the commercial department and would like to see its operation extended to the academic department. It would be a comparatively easy matter to effect this by providing for students who enter in the future separate groups in which the elective principle is adequately observed. Those students contemplating preparation for college have a course that is practically uniform. The elective system as now practiced permits the thoughtless and indolent of this group to confuse and retard the work of the group as a whole; abolition of the privilege would shorten the time of preparation and increase the efficiency of this group in particular.

A reasonable extension of the elective principle, however, and a fresh adaptation of graduation requirements would be most beneficial for those students who do not contemplate future college or professional activity.

It seems to me, also, that mid-year promotions with the present system of yearly graduations, are inconsistent. The student who enters college in February must wait at least four years for his diploma. In a system of half-yearly promotions, with credits for work for one semester, February promotions would fit naturally.

Respectfully submitted,

WILBUR F. SMITH,
Principal.

PAPERS RELATING

TO THE

BALTIMORE CITY COLLEGE.

FACULTY, 1911-1912.

WILBUR F. SMITH, *Principal.*
RICHARD H. UHRBROCK; *Vice-Principal.*
JOSEPH H. ELLIOT, *Secretary of the Faculty.*

English

ANDREW H. KRUG, PH.D.
BENJAMIN E. FLEAGLE, A. B.
FLOYD T. HOLDEN, A. B.
GLENN OWENS.

Modern Languages

CHARLES F. RADDATZ,
German.

J. KONRAD UHLIG, A. B.,
German.

C. OTTO SCHOENRICH,
German.

*CARLETON AMES WHEELER, A. M.,
German and French.

ARISTO M. SOHO, PH.D.,
Spanish and French.

Latin and Greek

GERARD EMORY MORGAN, A. M.,
Head of Department. Latin.

PHILIP H. EDWARDS, PH.D.,
Latin.

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*Resigned since.

EDWARD T. HILLS, A. B.,
Latin.

GEORGE A. STEELE, PH.D.,
Greek and Latin.

Mathematics

STEPHEN F. NORRIS,
Head of Department.

RICHARD H. UHRBROCK,
ALEXANDER HAMILTON,
CHARLES S. BRUMBAUGH, A. B.,
HAROLD H. BALLARD, PH.D.

History

PERCY L. KAYE, PH.D.,
Head of Department. History, Political Economy, and Civics.

FRANK R. BLAKE, PH.D.,
History.

S. R. WALLIS PARRISH,
History.

Science

LESLIE H. INGHAM, PH.D.,
Head of Department. Chemistry.

PHILIP H. FRIESE,
Physical Geography and Physics.

ROBERT I. HASELTINE, A. B.,
Botany, Zoology, and Biology.

PHILIP L. ROBB, B. S.,
Chemistry.

CHARLES C. PLITT,
Biology.

HUGO E. KUEHN,
Laboratory Assistant.

Commerce

JOSEPH H. ELLIOT,
Head of Department. Bookkeeping and Commercial Subjects.

JOHN A. KRATZ, A. B.,
Bookkeeping, Stenography, and Typewriting.

JOSEPH D. NOONAN,
Bookkeeping, Commercial Arithmetic, Penmanship.

Drawing

B. WALTER SWEANY,
WALTER R. GALE.

Physical Training

JOHN LORETT.

Librarian

ALICE W. REINS.

Theme Reader

EARLE LINDSAY ROGERS.

Clerk

R. POULTON TRAVERS.

ROLL ITEMS 1911-12.

1.	Number of pupils returned from Sept., 1911, to June, 1912, from the previous school year		638
2.	Number admitted by promotion from elementary schools		350
3.	Number admitted by transfer from other secondary schools		7
4.	Number admitted from outside elementary schools		18
5.	Total number in attendance during the year		1,013
6.	Number graduated September, 1911	...	
7.	Number graduated February, 1912	...	
8.	Number permanently withdrawn during year	216	
9.	Number transferred to other secondary schools	6	222
10.	Total net roll June, 1912		791
11.	Number graduated June, 1912		138
12.	Total number of graduates during year		138
13.	Average number belonging during 1911-1912		853
14.	Average attendance during 1911-1912		803
15.	Percentage of attendance (based on 13 and 14) 1911-1912		.941

SEPTEMBER 1911—JUNE 1912.

Table showing subjects in Baltimore City College, the number of Classes in each subject, and the number of students pursuing each subject.

SUBJECTS.	First Year.		Second Year.		Third Year.		Fourth Year.	
	Number of Classes.	Number of Students.	Number of Classes.	Number of Students.	Number of Classes.	Number of Students.	Number of Classes.	Number of Students.
English	8	355	7	303	6	209	4	131
German	4	120	4	205	4	159	1	31
French	.....	.....	4	140	2	77	1	15
Latin	5	261	5	205	3	100	2	43
Greek	.....	.....	1	30	1	7	.....	.....
History	5	179	2	70	5	162	2	87
Political Economy	.....	.....	.....	.....	.....	.....	2	52
Botany	6	284	.....	.....	.....	.....	.....	.....
Physical Geography	7	319	.....	.....	.....	.....	.....	.....
Zoology	.....	.....	1	27	.....	.....	.....	.....
Biology	.....	.....	2	60	.....	.....	.....	.....
Physics	.....	.....	.....	.....	1	20	1	21
Chemistry	.....	.....	.....	.....	2	69	1	22
Bookkeeping	3	122	2	62	1	22	.....	.....
Commercial Arithmetic	3	122	.....	.....	.....	.....	.....	.....
Commercial Geography	.....	.....	.....	.....	1	17	.....	.....
History of Commerce	.....	.....	.....	.....	.....	.....	1	23
Business Management	.....	.....	.....	.....	.....	.....	1	20
Commercial Law	.....	.....	.....	.....	.....	.....	1	22
Stenography	.....	.....	2	99	1	32	1	15
Typewriting	.....	.....	2	99	1	32	1	15
Drawing	9	440	8	320	2	62	1	11
Physical Training	8	395	5	217	3	128	1	10

GRADUATES, 1912.

George Cole Bacon, Jr.
Bartus Trew Baggott
Max Kentz Baklor
Harry Taneyhill Ballard
Alvin Herbert Banks
David Howard Barron
Allen Wrothe Beam, Jr.
Nathaniel Monroe Beck
Frederick Keller Bell
William Stanley Biscoe
William Howard Bockmiller
William Maurice Bolton
Earle Harrison Browning
Arthur Webster Bryan
Harrison Cadwallader Coffin
Samuel Cohen
Thomas Cohen
Arthur Bosley Connelly
George Clarence Cook
John Armiger Crane
William Herbert Dawkins
Frank William Dawson
Harold Kleiber Dell
John Donnet
Frank Furst Dorsey
Richard Liggan Driscoll
Cameron Duncan Ebaugh
Samuel Raymond Edel
William Wilcox Edel
Carl George William Feige
Israel Feingloss
Jesse Fine
Nathan Fineman
Robert Elmer Fricke
Sanley Gebhart
Joseph Ginsberg
Bernard Sigmund Gomprecht
Edwin Kinzley Gontrum
Thomas McCaulay Gontrum
Morris Greenthal
Milton Leopold Greenwald
Bowers Hewitt Growt
Klein Kinzer Haddaway
Lewis Hamburger
Arthur Alexander Hardy
Elmer Mittan Harper
Paul Reinhart Hassencamp
Charles Steuart Hihn
Joseph Albert Hlavin, Jr.
Howard Erwin Holland
Walter Emory Hutson
Goodman Isaac
Bernard Howard Jacobson
Bernard Samuel Jacobson
William Bernard Jacobson
Frank John Jira
George Garratt Johns
Arthur Carroll Jones
Albert Benton Junkins
Isador Frank Kartman
Malcolm Guest Keech
Thomas Jerome Kelly
Henry Samuel Kendall
George Edgar Kieffner
John Christian Knipp
Edward Helber LaPorte
Allen Howard Lemmon
Morris Levin
Charles William Levinson
William George Levinson
Samuel Joseph Lichtenberg
Walter Noble Linthicum
Morgan LeRoy Lumpkin
George Lorenze McClintock
O. Raymond McClure
William Earle McClure
George Harvey McCready
George Frame Mahool

Frank Christian Marino
Samuel Meisel
Otto Melamet
Joseph Samuel Merritt
Henry Clay Mewshaw
Harry Milton Miller, Jr.
Samuel Henry Miller
Leo Edmond Mooney
John Michael Nicklas
Alfred Elliot Ottenheimer
Jacob Brown Ottenheimer
Eli Julius Paris
Frederick Ernst Pausch
Jacob Arthur Pfeiffer
George William Louis Plitt
Arthur Chipman Primrose
Ferdinand Pross, Jr.
Vernon Adam Riedel
Martin Emanuel Rohn
Russell Elmo Ross
Zadoc Stanford Rothschild
Earle Winthrop Rowe
Alexander Proudfit Rusk
Louis Sachs
Benjamin Sacks
Daniel Salan
Albert Leigh Sanders, Jr.
Elmer Webster Sarbacher
Joseph Mitchell Schlessinger
Henry Franklin Sheely
Clare Orris Shull
Nathaniel Maurice Silberstein
Allyn Lee Slasman
Vernon LaRue Smith
John Alexander Smoot
Crain Wood Smoot
Edmund Maute Spieker
Albert Rosenstock Stargardter
Gideon Hutchinson Steffey
Meyer Steinberg
Clarence Albert Strasinger
Samuel Leslie Tattersall
Paul Mitchell Taylor
Thomas Jay Tingley
Melvin Bronson Todes
Marcus Arthur Tregor
Brison Cumming Tucker
Thomas Kenneth Vincent
William Benjamin Vogts
Dederick Conrad Weaver Ward, Jr.
Clarence Watkins
Edward Stratton Weaver
James Gwinn Webster
Alvin Rigbey Whiting
Paul Russell Wiggins
Nat Castleberg Wildman
Joseph Nimmo Wimbrough
Henry Roy Wingate
William Dorman Gill Wrightson

RECIPIENTS OF PEABODY PRIZES.

Of the First Grade—$100 Each

1. Zadoc Stanford Rothschild
2. Harrison Cadwallader Coffin
3. William Dorman Gill Wrightson

Of the Second Grade—$50 Each

1. Elmer Mittan Harper
2. Frank Christian Marino
3. John Armiger Crane
4. Harry Taneyhill Ballard

RECIPIENTS OF SCHOLARSHIPS IN THE BALTIMORE BUSINESS COLLEGE.

Max Kentz Baklor

Albert Benton Junkins

RECIPIENTS OF SCHOLARSHIPS IN THE EATON & BURNETT BUSINESS COLLEGE.

William Dorman Gill Wrightson

Nat Castelberg Wildman

REPORT OF THE PRINCIPAL

BALTIMORE POLYTECHNIC INSTITUTE.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,

Acting Superintendent.

SIR: I submit the following brief report of the work of this school covering the period from September, 1911, to July, 1912:

The school has a fixed technical course of four years, designed to prepare students for profitable employment in the wide field covered by civil, mechanical, electrical, chemical, and mining engineering, should circumstances or inclinations prevent them from seeking a higher education after graduation.

Observation and careful inquiry convince me that the results of the past year have in no sense fallen below the standard of accomplishment of the past. Of the ninety-one graduates, twenty-five entered higher institutions of learning, the remainder entering at once into engineering employment at monthly compensations varying from $25 to $60.

In no instance did any of those who entered higher institutions receive less than full sophomore standing.

The school is greatly handicapped in being divided and from the fact that it has neither an assembly room nor a gymnasium. These defects will be partially remedied next year by the expected occupation of the new building on North avenue and the recommended conversion of the present sheet metal shop at the annex into an assembly room with a seating capacity of about four hundred, the plans for which I am submitting to the Supervisor of School Buildings.

Very respectfully,

WILLIAM R. KING,
Principal.

PAPERS RELATING

TO THE

BALTIMORE POLYTECHNIC INSTITUTE.

FACULTY, 1911-1912.

(As of June 30, 1912.)

WILLIAM R. KING, U. S. N., *Principal.*

WILLIAM H. HALL, A. M., *Vice-Principal,*
Head of Department of Science.

GEORGE S. WILLS, A. M.,
Acting Head of Department of English and Modern Languages.

CHARLES E. CONWAY,
Head of Department of Engineering.

HENRY A. CONVERSE, PH.D.,
Head of Department of Mathematics.

J. MONTGOMERY GAMBRILL,
Head of Department of History and Civics.

A. HARLAN GREEN, *Secretary.*

FACULTY AND STAFF BY DEPARTMENTS.

DEPARTMENT OF ENGINEERING.

CHARLES E. CONWAY, *Head of Department.*

ALLEN L. MALONE,
JULIUS ZIEGET, C. E.,
SAMUEL P. PLATT,
HENRY BOGUE, JR., A. B.,
ALLEN B. SOUTHER, B. S.,
WILLIAM G. RICHARDSON,
GEORGE M. GAITHER,
GEORGE N. ANDERSON,
LAURENCE F. MAGNESS,
CLARENCE P. BOLGIANO,
HARRY C. FINCK,
W. ELWOOD VAIL,
LUTHER C. WRIGHT, C. E.,
EMANUEL FRITZ, M. E.,
OWENS LAWS.

DEPARTMENT OF MATHEMATICS.

HENRY A. CONVERSE, PH.D., *Head of Department.*

JOSEPH E. HODGSON, PH.D.,
OLIVER BACHARACH,
WILLIAM H. WILHELM, A. M.,
HARVEY S. HOUSKEEPER, A. B.,
THOMAS F. GAREY, A. M., LL.B.,
ALFRED B. HAUPT, A. B.,
WALTER F. SHENTON, B. S.,
HARRY C. GOSSARD, B. S.,
WILSON N. GAMBRILL.

DEPARTMENT OF SCIENCE.

WILLIAM H. HALL, A. M., *Head of Department.*

J. EDWARD BROADBELT, PH.G.,
IRVING L. TWILLEY, A. M.,
JAMES B. ARTHUR,
J. VINTON HOBBS,
HOWARD H. ELLIOTT,
E. HOWARD ASKEW.

DEPARTMENT OF ENGLISH AND MODERN LANGUAGES.

GEORGE S. WILLS, A. M., *Acting Head of Department.*

J. WARD WILLSON, M. D.,
EDWARD REISLER, A. M.,
ELMER M. HARN, A. M.,
WILLIAM P. STEDMAN, A. B.,
GEORGE H. SCHWARTZ, A. B.,
W. W. BADEN, PH.D.,
TAYLOR STARCK, A. B.,
CHARLES E. ADAMS,
LLOYD BARRICK, A. B.

DEPARTMENT OF HISTORY AND CIVICS.

J. MONTGOMERY GAMBRILL, *Head of Department.*

PHILIP DOUGHERTY, A. M.,
ISAAC L. OTIS, A. B.,
CHARLES F. RANFT, A. B.

ROLL, 1912.

Number of new pupils admitted during the year	1,021
Number of pupils admitted by promotion	57
Number of pupils admitted by transfer from the Baltimore City College	4
Total number of pupils during year	1,082
Number of pupils withdrawn during year and not re-entered	218
Number of pupils transferred to Baltimore City College	4
Number of graduates, 1912	90
Number of pupils belonging June, 1912	770
Number of pupils in care June, 1912	815
Average number of pupils belonging during 1912	896
Average attendance during year 1912 (93.5%)	834

Table showing the number of students pursuing the different subjects of the course of the Baltimore Polytechnic Institute and the time devoted to each subject.

Subjects.	First Year.			Second Year.			Third Year.			Fourth Year.		
	Number of Students.	Number of Sections.	Periods Per Week.	Number of Students.	Number of Sections.	Periods Per Week.	Number of Students.	Number of Sections.	Periods Per Week.	Number of Students.	Number of Sections.	Periods Per Week.
Steam Engineering							124	4	4	128	5	3
Mechanics										128	5	5
Mechanical Drawing	377	12	4	252	8	5	124	4	4	128	5	4
Practice	377	12	4	252	8	4	124	4	4	128	5	2
Algebra	377	12	4	252	8	3						
Geometry	377	12	4	252	8	2½						
Trigonometry				252	8	1	124	4	3			
Analytic Geometry							124	4	4			
Calculus										128	5	5
Physics				252	8	3						
Electricity							124	4	3	128	5	4
Chemistry							124	4	2	128	5	4
Composition and Rhetoric	377	12	2	252	8	2						
Literature	377	12	3	252	8	2½	124	4	3			
History	377	12	5									
German	377	12	3	252	8	3	124	4	3			
Civics and History				252	8	4						
French										128	5	3
English Grammar	377	12	1									

GRADUATES.

February, 1912.

John G. Bobb
Oliver Boucher
John J. Clancy, Jr.
T. Earle Cooper
James A. Cullen
Paul R. Dankmeyer
Paul Darrington
Frederick T. Goetze
Cyrus J. Kearney
Milton Kemp
Henry F. Krumm
Paul L. Lotz
F. Harrison MacCarthy
William F. McConnor
Fred Michel
William J. Parrott
G. Harvey Porter
Walter F. Ouast
Harry Schad
Edward C. Siebert
William T. Snyder
Abraham Tobias
Paul H. White

June, 1912.

William C. Andrae
R. Nelson Atwell
John Becker
George Beneze
Clarence Birnbaum
Lyle H. Burton
W. Logan Cassell
Howard W. Chew
Davis J. Cloward
Hyman A. Cohen
Mark S. DeHuff
Charles E. Dennis
Richard P. Drenning
Samuel H. Eby
Thomas S. Eichelberger
Howard Elliott
C. Clinton Emich
H. Stockton Ewell
J. Carroll Finnan
C. Edwin Fitzell
Albert Frey
Harry Fried
Arthur D. Fulton
Alfred M. Gagneux
Sydney F. Galvin
Frank T. Gartside
Robb Gover
William S. Graham
Theodore W. Hacker
William J. Heimiller
Karl J. Heineman
J. Wilbur Heisse
Carl H. Horn
Edgar M. Iglehart
Abraham N. Krieger
Eugene B. Link
Raymond T. Long
A. Craig Meikle
Charles A. Mengers
Rudolph Michel
William H. Munroe
Alfred S. Niles, Jr.

Charles E. Osenburg, Jr.
Raymond C. Parlett
Edward S. Poole
Gustav A. Rasch
James J. Riley
Henry H. Roschen
William H. Sandlas
J. Albert Schad
Lester A. Schloss
Eric E. Schmeid
Howard J. Schuster
John A. Sternberg
E. Raimon Stivers
Edwin M. Talbot
Edward J. Thomas
Frederick C. Traub
Oliver Travers
J. Leonard Walsh
H. Sigurd Walter
Charles B. Watkins
James S. Webb
Ormsby P. Webster
Reuben Wisthoff
T. Robey Wolfe
Ernest C. Zscheuschler

REPORT OF THE PRINCIPAL OF THE EASTERN HIGH SCHOOL.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: I beg to submit the following report on conditions in the Eastern High School for the term September, 1911, to July, 1912.

As regards the physical condition and equipment of the building, I will state that every effort has been made to maintain a high level of efficiency. To this end a number of alterations, additions, and improvements have been made during the term covered by this report, among them the refrescoing of the third floor corridor and of the reception room, the erecting of partitions looking to the installation of the department of domestic arts, the equipment of the gymnasium annex and of the offices for the teachers of physical training, with various minor improvements looking to the greater comfort of pupils and teachers.

Through the generosity of the Municipal Art Society, the main corridor and lobby of the building have been adorned with casts of statues and friezes. The number of books in the library, too, has been largely augmented by gifts from individuals and from the Alumnæ Association of the school. An appropriation of $300 has been granted by the Board of School Commissioners for the further development of this important branch of the school's work.

Of the 921 pupils on roll during the term 1911-12, about two-thirds pursued the academic course, and the remaining one-third the commercial course. It is worth noting that the great majority of those who drop out of school before completing the four-year course are commercial students. This

becomes increasingly evident as the upper years are reached; and whereas the commercial students constitute about 40 per cent of the total first year enrollment, this percentage drops to 20 or less in the last year of the course. It seems evident to me from this state of affairs, for which economic conditions are chiefly responsible, that a well-rounded two-year commercial course is desirable. The demand for instruction in commercial branches is becoming increasingly marked, and the four-year course as now constituted amply meets the needs of those who can complete it. There is, however, an opinion in some quarters that the work of the third and fourth years is a bit too heavy.

The interest in Latin courses continues normal, while there is a very marked trend toward the election of the various branches of science offered in the school, notably zoology and astronomy.

Particularly gratifying is the ever increasing number of our graduates that goes to college. Of the class of 121 which was graduated in June, 1912, fifteen indicated their intention to continue their studies in higher institutions; about forty expected to enter the Teachers' Traning School, and about thirty to go into business.

The appointment of a regular librarian for the school in September, 1911, has greatly increased the value of the library to the pupils and teachers. The work of the pupils has been systematized, special features of value have been introduced in the library work, the books have been catalogued and indexed. The librarian's report of June, 1912, shows that nearly 12,000 readers used the library during the school term.

By way of general recommendation I would urge the appointment of heads of departments at a slight advance in salary. My present practice puts the routine of each department in the hands of the senior teacher.

Respectfully submitted,

ERNEST J. BECKER,
Principal.

PAPERS RELATING

TO THE

EASTERN HIGH SCHOOL.

FACULTY, 1911-1912.

ERNEST J. BECKER, PH.D., *Principal.*
LAURA V. DEVALIN, *Vice-Principal.*

English

LAURA V. DEVALIN,
ALICE J. DUBREUIL, A. B.,
(and French).

ANNABEL E. HARTMAN, A. B.,
RUTH HASLUP, A. B.,
(and History).

KATHERINE E. MOOG, A. B.,
ALICE G. MALLALIEU, A. B.,
(and Mathematics).

ALICE E. CALDER, A. B.,
(and Physical Geography).

Mathematics

KATHERINE M. LEWIS,
HARRIET E. EBAUGH, A. B.,
ELIZABETH G. WHITE,
CAROLINE F. BECKER, A. B.,
(and Astronomy and Commercial Geography).

A. NAOMI CROWL, A. B.,
(and English).

History

LEONORA E. CARPENTER,
United States History and Civics.
REBECCA BELLE BROOKS,
Greek and Roman History.
THEORA J. BUNNELL, A. B.,
European History.

Latin

MARGARET GARRETT,
ELEANOR R. HOSKINS, A. B.,
ROSA BALDWIN, A. B.,
(and English).
KATHERINE LUMMIS, A. B.,
(and Algebra).

Modern Languages

ERNEST J. BECKER, PH.D.,
German.
AGNES E. BUCHHOLZ,
German.
SOPHIE SEYFERTH,
German and French.
AMELIE GRAF,
German and French.
ELSA CONRADI,
German.

Science

IDA NEUMAN,
Botany, Biology and Zoology.
KETURAH BALDWIN, A. B.,
Chemistry and Physics.
HELEN K. BACHRACH, A. B.,
Laboratory Assistant.
LORETTA BOLLMAN, A. B.,
Laboratory Assistant.
RUTH TAYLOR (temporarily assigned),
Laboratory Assistant.

Commercial Subjects

ANNA GRACE KENNEDY, L.L.B.,
Stenography and Typewriting.

THEODOCIA B. MAHON,
Bookkeeping.

ROSE C. WICKES (Special Substitute),
Stenography and Typewriting.

MARY R. TRAVERS (Special Substitute),
Bookkeeping, Stenography and Typewriting.

WM. D. ROYCROFT, L.L.B. (part time),
History of Commerce, Business Management,
Commercial Law, Economics.

Drawing

ELIZABETH M. MAKIBBIN.
OLIVE C. SLATER.

Physical Training

LILLIA B. OTTO.

Music

ANNA D. C. KRIEGER.

Librarian

KATHERINE G. GRASTY.

Theme Reader

CLARA T. RILEY.

Clerk

MADELINE THOMPSON.

ROLL FOR THE YEAR

SEPTEMBER 1911—JUNE 1912

Number of pupils on roll June 16, 1911	571	
Number of pupils admitted by promotion from grammar schools in September, 1911	274	
Number of pupils admitted by promotion from grammar schools in February, 1912	44	
Number of pupils admitted during the year from schools other than the Baltimore Grammar schools	31	
Number of pupils transferred from the Western High School during the year	1	
		921
Number of pupils withdrawn during the year	104	
Number of pupils graduated in February, 1912	1	
Number of pupils graduated in June, 1912	120	
Number of pupils transferred to Western High School during the year	5	
		230
Number of pupils in care June 14, 1912		*812
Average number of pupils belonging during the year		812.4
Average number of pupils in attendance during the year		750.4
Percentage of attendance for the year		92

*121 Graduates included in this number.

Table showing the subjects taught in the Eastern High School, the number of classes in each subject, and the number of pupils pursuing each subject.

Subjects.	First Year.		Second Year.		Third Year.		Fourth Year.	
	Number of Classes.	Number of Pupils.	Number of Classes.	Number of Pupils.	Number of Classes.	Number of Pupils.	Number of Classes.	Number of Pupils.
Algebra	13	337	.....	.....	4	127	1	24
Arithmetic	5	123	.....	.....	.....	.....	.....	.....
Astronomy	.....	.....	.....	.....	.....	.....	1	14
Biology	.....	.....	3	92	.....	.....	.....	.....
Bookkeeping	5	124	4	80	3	39	.....	.....
Botany	2	48	.....	.....	.....	.....	.....	.....
Business Management	.....	.....	.....	.....	.....	.....	1	37
Chemistry	.....	.....	.....	.....	.....	.....	1	47
Civics	.....	.....	.....	.....	.....	.....	4	127
Commercial Geography	.....	.....	.....	.....	2	40	.....	.....
Commercial Law	.....	.....	.....	.....	.....	.....	1	30
Drawing	10	300	10	192	8	136	4	58
English	11	281	7	185	4	121	5	103
French	.....	.....	2	68	2	58	1	10
Geometry	.....	.....	6	139	1	16	1	24
German	5	151	7	190	3	75	1	27
History	5	159	.....	.....	5	136	4	125
History of Commerce	.....	.....	.....	.....	.....	.....	1	35
Latin	5	138	4	110	3	59	1	35
Music	11	266	8	214	7	193	4	139
Physical Geography	2	46	.....	.....	.....	.....	.....	.....
Physical Training	8	221	7	159	3	109	1	45
Physics	.....	.....	.....	.....	4	133	.....	.....
Political Economy	.....	.....	.....	.....	.....	.....	1	39
Stenography and Typewriting	.....	.....	4	105	3	47	1	30
Trigonometry	.....	.....	.....	.....	.....	.....	1	22
Zoology	.....	.....	1	42	.....	.....	1	38

GRADUATES.

Mary Ethel Anderson
Sarah Spencer Atwell
Lila Norene Ayler
Ruth Bacon
Marie Louise Baer
Matilda Evelyn Baer
Mildred Leona Baer
Helen Cecilia Bardroff
Jessie Marie Beale
Jennie M. Beck
Helen Elizabeth Beiswanger
Blanche Gessford Betz
Bessie Clapham Blackburn
Rebecca Marlowe Blackburn
Juliet Agnes Blass
Edith Flora Bolgiano
Carolyn Matilda Borcherding
Grace E. Buchheimer
Bessie Budnick
Mary Clark Canoles
Katherine Carney
Mary Colt
Edith Gertrude Confer
Lillie Celia Cooper
Fannie Ada Caplan
Ethel Harmon Cummings
Helen Rebecca Curley
Anna Marie Danz
Emma Adelaide Dinsmore
Lucille Drenning
Mary Lavina Duvall
Edith Marie Fisher
Ruth Moul Fleagle
Emma Marie Frederick
Edna Katherine Friedel
Genevieve Ganster
Florence Catherine Garvey
Myrtle Lowndes Gilbert
Helen Gittings
Elsie Gleitsman
Mary Elizabeth Glenn
Anna Florence Goetz
Eva Myrtle Gough
Edna Dorothy Griffin
Hilda J. A. Gunkel
Helen Marie Gunther
Mildred Lenore Gunther
Florence Theresa Gutberlet
Jean Ingelow Hamilton
Edna Georgia Hanson
Dorothy Harding
Margueritte Mariott Harman
Vera Dorothy Heckman
Julia Elizabeth Heil
Margaret Lillian Henderson
Louise Marie Hertel
Louise Marie Heuer
Ruth Geneveve Hogan
Helen Hooper
Mary Elizabeth Holloway
Mary House
Margaret Gantt Jackson
Grace Jacobs
Alice Marie Jenkins
Ella Grace Josselyn
Irene Elizabeth Keiner
Maude Alice Klingberg
Barbara Kotwald
Irene Kotwald
Janet Taylor Krantz
Theresa Matilda Kress
Ethel Kroeber
Louise Prescott Lavender
Anna Levy
Margaret Elizabeth Linz
Mildred Verna Longfellow
Florence Luken
Bertha Elisabeth Marshall

Viola Matthews
Estelle McElroy
Alma Leota McVey
Myrtle Irene Miller
Cornelia Esther Montague
Irma Viola Murphy
Marjorie Myers
Margaret Anna Neumann
Lucy Orrick Nicols
Lena Picker
Maria Eva Cecelia Prettyman
Sarah Hazel Ramsay
Elsie Myrtle Resh
Amanda Shipley Rice
Helen Lydia Ridgaway
Mary Arianna Richardson
Ruth Todd Ridgely
Annie Rivkin
Marguerite Hazel Roche
Beulah Olivia Roeder
Cora Josephine Sauer
Mary Virginia Sauerwein
Gladys Schillinger
Marie Johanna Schroeder
Lillian May Schukraft
Elsa Frieda Seiler
Barbara Wilhelmina Seippel
Harriet Edel Sheppard
Bessie Silberstein
Mary Henrietta Sinclair
Lillian May Smith
Ruth Marie Solomon
Ariel May Summers
Elsie Fany Thiel
Estelle Marguerite Vorsteg
Helen Catherine Wallace
Della Viola Weber
Rose Marguerite Weigel
Elizabeth Spencer Welch
May Kendall Westcott
Penelope Shield Westcott
Mabel Agatha Wright
Helen Annette Yestadt

RECIPIENTS OF PEABODY MEDALS.

First Grade

Rebecca Marlow Blackburn
Julia Elizabeth Heil
Della Viola Weber
Dorothy Harding
Helen Annette Yestadt

Second Grade

Estelle Marguerite Vorsteg
Penelope Shield Westcott
Florence Theresa Gutberlet
Irma Viola Murphy
Carolyn Matilda Borcherding
May Kendall Westcott
Elizabeth Spencer Welch
Theresa Matilda Kress
Louise Marie Hertel
Sarah Spencer Atwell

HONORABLE MENTION.

Mary Colt
Ella Grace Josselyn
Marjorie Myers
Ruth Marie Solomon
Bertha Elisabeth Marshall
Ariel May Summers
Irene Kotwald
Barbara Kotwald
Lillian May Schukraft
Annie Rivkin
Cornelia Esther Montague
Mildred Verna Longfellow
Margaret Anna Neumann

RECIPIENTS OF SCHOLARSHIPS.

Goucher College Scholarship..... Rebecca Marlow Blackburn
Alumnæ Scholarship..... Dorothy Harding

Baltimore Business College..... { Bertha Elisabeth Marshall, Viola Matthews }

Eaton & Burnett Business College..... { Marguerite Gantt Jackson, Rose Marguerite Weigel }

REPORT OF THE PRINCIPAL OF THE WESTERN HIGH SCHOOL.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: I present, herewith, a report upon the work of the Western High School from September, 1911, to July, 1912.

The daily program was changed from five periods of about fifty-two minutes each to six periods of forty-five minutes each. This change was made necessary by the introduction of physical training in the course of study. Under the former arrangement of a twenty-five period week, there was not sufficient opportunity for pupils to have the highly important work in physical training. The thirty-period week is a very much more satisfactory arrangement. Each pupil carries four major subjects which require home preparation. In addition to these, she has work in drawing, music, physical training, and household arts. In a daily program of six periods, she will have, on the average, four major subjects, one subject requiring no home preparation, and one period for study under careful supervision. The shortening of the period from fifty-two to forty-five minutes is an improvement. It is doubtful if the attention of adolescent pupils can be held firmly for the longer period. If pupils are not attentive during the last few minutes of the period, the time is wasted for teaching purposes, and there is an unnecessary strain upon the teacher.

The first class to complete the new commercial course was graduated in June. To begin the commercial work in the first year instead of the second has been an improvement. Under the present arrangement, pupils may secure sufficient

training in three years to enable them to fill positions, and may become more proficient by taking the additional work in the fourth year. It is gratifying to know that these pupils are highly satisfactory to employers.

A general assembly for all the pupils of the school is held once each week, and occupies about thirty minutes. Since this assembly has been regularly held, there has been a marked improvement in the entire school. A good school spirit is promoted.

There has been a gradual increase in the number of graduates attending higher educational institutions, especially Goucher College. The good record made by Western High School pupils at that college is a source of gratification to the members of the high school faculty.

The School Board granted an appropriation of $300 for the purchase of books for the library. This sum enabled us to secure material greatly needed to supplement the work of the classroom.

At the end of the school year, the School Board approved the plan to add household arts to the course of study. This department is destined to add greatly to the benefits which the pupils derive from their high school course.

The following suggestions are respectfully made:

1. A careful study should be made of the advisability of dividing the curriculum into five or six "courses," such as: college preparatory, commercial, etc. A beginning has already been made by establishing a commercial course.

2. The number of pupils, entering the first year in February, is comparatively small. The number decreases in the higher years of the school, so that very small classes have to be provided for. The matter should be carefully studied with a view to improving this condition.

3. Many pupils of the high school attend the Peabody Institute. Some find it impossible to devote a sufficient amount

of time to music in addition to their regular high school work. If "courses" are provided, as mentioned in suggestion No. 1, it may be a good plan to arrange for some method of co-operation with the Peabody Institute so that pupils may receive credit for work done in that institution. This credit should not exceed 25 per cent of the total amount required for graduation. By this plan, it will probably not be necessary for pupils to withdraw from school because of inability to do all the school work in addition to music.

Respectfully submitted,

DAVID E. WEGLEIN,
Principal.

PAPERS RELATING

TO THE

WESTERN HIGH SCHOOL.

FACULTY, 1911-1912.

DAVID E. WEGLEIN, A. B., *Principal.*

English

IMOGEN GEORGE,
M. THERESA DALLAM,
AUGUSTA F. DITTY,
LIZETTE W. REESE,
BESSIE E. KLEIBACKER,
E. ANNA HARRISON, A. B.,
MOLLY W. WOOD, A. B.,
MIRIAM W. SHAW, A. B.

History

DAVID E. WEGLEIN, A. B.,
Civics.

LAURA J. CAIRNES, A. B.,
SUSIE H. HOLLSTEIN,
MARGARET T. ENGLAR, A. B.,
(and Algebra).

M. ELLA HARRISON, PH.B.

Mathematics

ANNE E. WELTY,
CHARLOTTE A. JONES, A. M.,
E. LEOLA DIXON,
ANNABEL WHITE,
M. ELIZABETH HOLDEN, A. B.,
(and English).

Latin

MARY B. ROCKWOOD, A. M.,
ANNIE W. NICHOLSON,
MARY E. HUDGINS,
LUCY E. MURRAY, A. B.

Modern Languages

LOUISE E. THALWITZER,
German.
EMILIE S. REINHARD, A. B.,
German.
ELIZABETH C. REMMERT,
German.
EUGENIA CASPARI,
German (and English).
MIRIAM ELFRETH,
French.
ANNIE G. WETTERMANN,

Commercial Subjects

GRACE I. GILL,
DELIA R. ALFORD,
MARGARET G. PERRY,
ELIZABETH MINNICK,
(assigned substitute).

Science

LELIA H. SMITH, A. B.,
Physical Geography, Botany, (and Algebra).
MARY H. MULLIKIN, A. B.,
Physics and Chemistry.
MARGARET A. HAYDEN, A. B.,
Biology.
EVELYN W. BETTS, A. B.,
Laboratory Assistant, Chemistry.
HAZEL PATTEN (assigned substitute),
Laboratory Assistant.
FRADELIA RICE, A. B., *Laboratory Assistant.*

Drawing

ROBERTA DAVIS,
ELISABETH HELSBY,
LAURA L. ALFORD, A. B.,
(and English).

Physical Training

FLORENCE THOMPSON,
MARY A. FOLEY,
HAZEL V. DENNIS (assigned substitute).

Music

HENRIETTA G. BAKER.

Librarian

MARY S. WALLIS.

Clerk

ELIZABETH K. SCHELDT.

ENROLLMENT IN 1911-1912.

Number of pupils returned in September, 1911	799	
Number admitted by promotion from elementary schools	508	
Number admitted by transfer	5	
Number admitted from schools other than Baltimore elementary schools	83	
Total number in attendance during the year		1,395
Number graduated in September, 1911	1	
Number graduated in February, 1912	3	
Number withdrawn during year	273	
Number transferred to other schools	2	
		279
Enrollment, June, 1912		1,116
Number graduated June 20, 1912		150
Total number graduated during year		154
Average number belonging during 1911-1912		1,153
Average attendance during 1911-1912		1,080
Percentage of attendance during 1911-1912		93.6%

Table showing the subjects taught in the Western High School, the number of sections in each subject, and the number of pupils pursuing each subject.

Subjects.	First Year.		Second Year.		Third Year.		Fourth Year.	
	Number of Sections.	Number of Pupils.	Number of Sections.	Number of Pupils.	Number of Sections.	Number of Pupils.	Number of Sections.	Number of Pupils.
Algebra	15	555	1	36	2	61	.....	.....
Biology	.....	.....	3	51	.....	.....	.....	.....
Bookkeeping	6	175	3	55	1	23	.....	.....
Botany	2	79	.....	.....	.....	.....	.....	.....
Business Management	.....	.....	.....	.....	.....	.....	1	13
Chemistry	.....	.....	.....	.....	.....	.....	3	96
Civics	.....	.....	.....	.....	.....	.....	5	146
Commercial Arithmetic	6	177	.....	.....	.....	.....	.....	.....
Commercial Geography	.....	.....	.....	.....	1	15	.....	.....
Commercial Law	.....	.....	.....	.....	.....	.....	1	15
Drawing	15	500	11	312	5	161	2	54
Economics	.....	.....	.....	.....	.....	.....	1	14
English	15	540	10	309	7	227	5	146
French	.....	.....	4	109	4	115	2	70
Geometry	.....	.....	8	229	1	42	.....	.....
German	6	196	7	199	6	148	1	30
History	8	314	3	123	5	159	5	143
History of Commerce	.....	.....	.....	.....	.....	.....	1	11
Latin	8	366	8	218	2	65	2	44
Music	3	509	2	318	1	216	1	169
Penmanship	6	175	.....	.....	.....	.....	.....	.....
Physical Geography	2	75	.....	.....	.....	.....	.....	.....
Physical Training	12	332	8	229	4	114	4	87
Physics	.....	.....	.....	.....	4	129	.....	.....
Review Mathematics	.....	.....	.....	.....	.....	.....	1	18
Stenography and Typewriting	.....	.....	2	78	1	29	2	41
Zoology	.....	.....	.....	.....	.....	.....	2	49

GRADUATES, 1912.

February Class

Ruth Loane Blaney
Lilith Edna Eiser
May Beryl Emich

June Class

Willanna Pierce Alford
Machree Elizabeth Allender
Valeria Bachman
Sadye Maria Bailey
Marie Florence Barrett
Elsie Louise Bender
Elspeth Lillian Benson
Antoinette Sexton Biggs
Eleanor Louise Biggs
Anita Lucretia Blase
Fannie Blaustein
Susie May Bobbitt
Florence Ringgold Bone
Eugenia Boteler
Elizabeth Hunt Brattan
Jennie Zelda Brodie
Pauline Hamilton Brooks
Mildred Rae Buckey
Anna Winterode Burk
Mildred Carpenter
Katherine Marie Chambers
Anna Magadelene Charlton
Florence Caroline Claus
Cynthia Savage Cochran
Katherine Magdalene Conlon
Dorothy Colby Crooks
Margaret Harmon Curry
Esther M. Cutchin
Mary Waters Davy
Amellena Caroline Dittmar
Helene Doetsch
Helen Downs
Jeannette Elise Eisenbrandt
H. Louise Taylour English
Sylvia Fine
Florence Dixon Fitz-Patrick
Etta Ruth Frederick
Miriam Friedemann
Millie Friedman
Irene Margaret Friz
Elizabeth Matilda Gebhardt
Alice Jane Gettrust
Hannah Hilda Goodman
Virginia Lee Gosnell
Dorothy Gover
Edith Graham
Helen Katherine Grote
Louise Gruber
Frances Wilkinson Hagner
Zella May Hall
Mary Beth Hamilton
Laura Grace Hampson
Leonore Hasenkamp
Marie Helber
Josephine Mae Herold
Frances Elizabeth Hildebrandt
Mary Achsah Hildebrandt
Mary Estelle Hipsley
Harmine Wilhelmina Hoffman
Gertrude Paula Hofmann
Mabel Emma Holland
Virginia Catherine Holloway

Ruth Virginia Hook
Harriett Valeria Hooker
Helen Rebecca Houck
Grace Olivia Ide
Emma Elizabeth Ijams
Hilda Carrick James
Mildred Anderson Jones
Leona Joy Kaiser
Johanna Caroline Kaschner
Esther Van Leer Katz
Elizabeth Ruth Klippel
Margaret Lang Knell
Jennie Marie Knipp
Bertha Janetta Kollmeyer
Anna Kothe
Ruth Ann Kramer
Rhona Kuder
Nettie Anna Louise Kuhlmann
Ethel Irene Lambert
Lida Adele Lambert
Mary Louise Lambert
Elizabeth Talbot Lamdin
Elnora Margaret Lawton
Florence Ethel Leonhardt
Leonora Holmes Lesse
Jessie Pearl Lewin
Elsie Elizabeth Lipps
Eloise Logan
Ruth Horner Love
Hazel Elizabeth Meushaw
Gertrude Meyer
Grace Miller
Hilda Elizabeth Miller
Miriam Amelia Miller
Frances Belinda Mittler
Neva Elizabeth Moore
Elizabeth Cabell Noland
Helen Monroe Norris
Maude Hurlbutt Norris
Ada Braley Nowlin
Margaret Alacoque O'Connor
Mary Aler Owen
Mary Elizabeth Page
Ruth Geraldine Perkins
Ruth Clara Olivia Pick
Grace Minnie Picking
Alma Myrtle Pilert
Margretta Virginia Pyles
Hilda Virginia Quensen
Helen Marie Riley
Willie Newell Rippard
Marguerite Rosenau
Mary Agatha Scally
Esther Schapiro
Elsa Marie Schroeder
Louetta Louisa Schwabeland
Blanche Genevieve Sheckells
Elsie Slingerland
Eva Bertha Smiley
Anna Tilghman Smith
Annette Platt Smith
Lillian Carolyn Smith
Mindell Steindler
Idabelle Stevenson
Marguerite Stotler
Margaret Elise Strobridge
Mary Elizabeth Sutton
Daisy Olivia Thurston
Elsa Tiemeyer
Lillian Webster Tipton
Lorraine Dorothy Todes
Selma Hirshberg Ullman
Pauline Genevieve Van Daniker
Gertrude Van Gorder
Anna Mildred Vincent
Elfrieda Volz
Agnes Virginia Von Schulz
Clara Amelia Wagner
Ella Elizabeth Warnken
Ida Miriam Watkins
Naomi Carr Whalen
Helen Margaret Wheatley
Lillian Gladys Williams
Mary Dorsey Williams
Mary Eleanor Williams
Pamelia Raine Winder
Margaret Florence Winkelman
Esther Edmonia Woodall

RECIPIENTS OF PEABODY MEDALS.

First Grade

Jeannette Elise Eisenbrandt
Irene Margaret Friz
Lillian Carolyn Smith
Mary Louise Lambert
Mary Waters Davy

Second Grade

Mary Beth Hamilton
Etta Ruth Frederick
Virginia Catherine Holloway
Johanna Carolyn Kaschner
Helen Margaret Wheatley
Helen Rebecca Houck
Eleanor Louise Biggs
Elsie Slingerland
Millie Friedman
Selma Hirshberg Ullman

HONORABLE MENTION.

Esther Van Leer Katz
Maude Hurlbutt Norris
Anna Kothe
Elizabeth Ruth Klippel
Rhona Kuder
Leonore Hasenkamp
Miriam Amelia Miller
Valeria Bachman
Lillian Gladys Williams
Elsie Louise Bender

Note—Miss Louetta Louise Schwabland, Miss Lilith Edna Eiser, Miss Ruth Loane Blaney, and Miss Alma Myrtle Pilert take rank in scholarship ninth, sixteenth, seventeenth and twenty-first, respectively; but under the rules they are not eligible to Peabody prizes, because they have not obtained thirty-six credits by the pursuit of courses in subjects set for the fourth year. Miss H. Louise Taylour English and Miss Sadye Maria Bailey take rank in scholarship fifteenth and twenty-eighth, respectively; but under the rules they are not eligible to Peabody prizes because the work offered by them for graduation was completed in more than four years.

RECIPIENTS OF SCHOLARSHIPS.

Goucher College Scholarship.....Helen Rebecca Houck

Alumnæ Scholarship.....Mary Louise Lambert

Baltimore Business College..... { Louise Gruber / Alma Myrtle Pilert

Eaton & Burnett's Business College..... { Mildred Carpenter / Esther Schapiro

PAPERS RELATING

TO THE

COLORED TRAINING SCHOOL FOR THE SCHOLASTIC YEAR ENDING JUNE 30, 1912.

FACULTY.

JOSEPH H. LOCKERMAN, *Principal,*

Psychology, General Method.

J. R. PAUL BROCK, *Assistant,*

History of Education, Method in Arithmetic.

ANNA O'H. WILLIAMSON, *Assistant,*

Method in History, Method in Geography, Method in Nature Study, School Management.

NELLIE B. NICHOLSON, *Assistant,*

Education, Arithmetic (Review), English (Review).

GEORGINE S. LEWIS, *Assistant,*

Method in Reading, Method in Literature, Method in Language and Grammar.

LUCINDA COOK, *Supervisor of Practice.*

MARY E. COOPER, *Assistant Supervisor of Practice.*

ENROLLMENT FOR THE SCHOLISTIC YEAR, 1911-1912.

Number admitted as new since September 1, 1911:		
Boys	10	
Girls	87	
		97
Number withdrawn (not re-entered)		35
Number elected to substitute list		42
Number on roll June 21, 1912:		
First year	23	
Second year	50	
		73
Average enrollment during the year		77
Average attendance during the year		67.4
Percentage of attendance during the year		95.1

REPORT OF THE PRINCIPAL OF THE COLORED HIGH SCHOOL.

BALTIMORE, June 30, 1912.

MR. CHARLES J. KOCH,
Acting Superintendent.

SIR: In submitting my annual report to you, I desire, first, to call your attention to several epochs in the history of this school.

The Colored High School was set apart in 1885 with a principal and several assistants. The school was housed first in the Old City Hall on Holliday street. In 1897, a new building, now used as the Central Police Station, was erected at a cost of $25,000. In 1901 the high school was moved to the present location and the scope of the school enlarged so as to include manual training and the regular high school subjects. In June, 1901, there were 250 pupils enrolled. In June, 1912, the average belonging for the month was 510 pupils. The average number belonging for the year ending June, 1912, was 552; average attendance, 527. In the course of the last seven years the school has reached several thousand pupils directly and many more indirectly. Marked improvement has taken place both in quality and quantity of work done. The science course has been enriched with the addition of laboratory courses in biology and chemistry. Courses in physical training, German, commercial branches and courses of a vocational character have been added. The efficiency of the teaching has been improved by the division of the work into departments. But, the frequent changes in the faculty due, for the most part, to low salaries and the absence of a salary scale for teachers in this school have made it difficult to maintain an efficient corps of teachers.

In this connection, therefore, I desire to call your attention to my former recommendation for the adoption of an adequate salary scale for this school. Of equal importance is my former recommendation, which I most respectfully recall to your attention, namely, the necessity of providing adequate housing for this school. Realizing the fact that, after plans have been approved for the erection of a high school, it will take probably three or four years for the completion of the same, I, therefore, strongly recommend that steps be taken as soon as possible to bring the matter to such shape as will make it possible to secure a building within the time stated. As the work of this school can scarcely be carried on advantageously in the present ill-adapted and cramped quarters for more than four or five years, it is imperative that initial plans necessary for securing a new building be at once inaugurated. I therefore respectfully submit that the question of a salary scale for the teachers and the need of a new building are fundamental to the best welfare of this school.

Pupils.

With reference to the high school students, it is gratifying to note that our students are generally successful in their school work and deport themselves for the most part, in an entirely satisfactory manner. We have few cases of serious breaches of good discipline. There is a slight improvement in scholarship and a greater effort on the part of the pupils to adjust themselves to the requirements.

Teachers.

The teachers of this school are generally capable, conscientious and progressive. As a means of self-improvement many attend Columbia University and other summer schools. In addition to their regular school duties a few find time for social service throughout the city.

Monthly Educational Faculty Meetings.

Theoretical and practical problems of school-keeping furnish topics for discussion in the educational faculty meetings held monthly. A Committee on Program, elected by the teachers themselves at the beginning of the year, arrange programs, with the assistance of the Principal, and assign topics to participants for each meeting. At each meeting a teacher selected by the Principal acts as Chairman. For the past year considerable interest and great activity have characterized the relationship of the teachers in general to this phase of professional work. Included in the monthly educational faculty meetings were the joint meeting between the teachers of the Colored Training School and this school and the round table conference of teachers of the seventh and eight grades and the Colored High School.

The topics discussed during the course of the year were:

October—"Inspiration from Summer Interests—Travel, Conventions and Summer Schools."

"Hampton Conference," Thomas W. Turner.
"Columbia University," Ralph W. Reckling.
"Columbia University," Margaret A. Flagg.
"Columbia University," Carolyn B. King.
"Europe," Maudelle T. Browne.
"Columbia University," Lucy D. Slowe.
"Columbia University," Carrington L. Davis.
"Columbia University," Perry D. G. Pennington.
"Conference of Colored Teachers of Colleges and Secondary Schools, St. Louis, Mo.," Mason A. Hawkins.

November—"Methods in Teaching History":

Margaret A. Flagg.
Ralph W. Reckling.

December (round table conference)—"Methods in Teaching History":

1. "In the Grades":
   William H. Lee.
   Anna O'H. Williamson.
   Herbert M. Frisby.
2. "In the High School":
   Margaret A. Flagg.
   Ralph W. Reckling.

January (address)—"Animal Psychology":

Dr. John B. Watson, Hopkins University.

February (address)—"Administrative Details":

Principal Mason A. Hawkins.

March—"Ethical and Moral Training in the Schools":

Thomas W. Turner.
Louise R. M. Parm.
Joshua E. Maxwell.

April—"Outcomes of Teaching":

Dwight O. W. Holmes.
John J. Wheeler.
Perry D. G. Pennington.
Georgianna H. Fields.

May (a joint meeting)—"Inter-relation of the High School and the Training School":

Training School:
   J. R. Paul Brock.
   Lewis H. Murray.
   Anna O'H. Williamson.

High School:
   Fannie L. Barbour.
   Thomas W. Turner.
   Joshua E. Maxwell.

School Lectures.

A series of popular lectures scheduled bi-weekly from October to May, inclusive, are given by prominent men and women and by the teachers of the school upon a variety of topics. The lecturers, from their rich experience and ripened knowledge incite the student, as perhaps nothing else does, to put forth his best efforts to develop self-expression and self-culture through learning and doing.

The speakers and subjects for the year were:

Mr. John H. Murphy, Jr.—"The Modern Newspaper."

Miss Lucy D. Slowe—"Some Early American Writers."

Dr. Lillian Welsh—"Hygiene and Appropriate Dress for Girls."

Mr. Daniel A. Brooks—"The Function of Fine Arts."

Hon. Howard M. Emmons—"Good Citizenship."

Rev. Oliver Huckle—"Thomas Carlyle."

Mr. Frank A. Manny—"Twenty Miles Underground."

Dr. Edward Short—"Diet in Relation to Growth."

Dr. J. O. Spencer—"Geography."

Bishop J. Albert Johnson—"South Africa."

Mrs. Azalia Hackley—"The Art of Singing and Speaking."

Parents' Club.

The quarterly meetings of the Parents' Club were held throughout the year. The attendance, averaging 250 at each meeting, seemed somewhat larger than that of former years. Conferences of parents and teachers are held at the beginning of the meetings, the musical selections and address with general discussion concluding the program. On the whole, the meetings were very satisfactory in that the co-operation between home and school is becoming heartier and the enlightenment of the people as to what makes for their own best welfare is increasing.

The speakers and topics discussed by them were:

Rev. G. R. Waller—"The Kind of Co-operation Between Parents and Teachers Which Will Bring the Best Results."

Miss M. S. Hanaw—"Amusements, Private and Public: Problems for the Community to Solve."

Miss Lucia Davis—"Social Hygiene."

Miss Harlean James—"Civic Improvement."

The New Course of Study.

The new course of study adopted in June, 1911, was opened to first-year classes in September, 1911. The first year's working of the same has disclosed nothing but advantages of this course over the old course with its wide range of electives and the resulting loose organization. Under the new course, scarcely less is being accomplished in the reduced time given to required manual training, while the more compact organization makes it possible for the same number of teachers to administer to a larger number of pupils and accomplish better results in all lines of work.

To a better perfected organization in which attention is given to issuance of monthly scholarship reports and to conferences with parents and pupils whenever necessary, may be attributed to some extent the largest graduating class in the history of the school, exceeding by seventeen the class of June, 1911, which latter outnumbered all previous classes. The graduating class, seventy-nine in number, constituted 14.3 per cent of the average number belonging for the year.

Emphasis of Administration.

The emphasis for the past two years has been placed upon the machinery of school administration, including courses of study; systems of records and reports; organization of teaching force; discipline and government of pupils; and the larger social interests of the school, embracing school clubs, athletics, pub-

lic lectures, parents' meetings, etc., with only such attention to detailed supervision of the work of any teacher or subject as the exigencies of the situation required. But as the only *raison d'etre* for any machinery of education is the extent to which it furthers the ends of education, the machinery having been put into proper running order, the emphasis will now be placed upon the "what" and the "how" of the teaching adapted as thoroughly as possible to the present needs and future services of each student.

Looking to this end, the outcomes of teaching the various subjects of the several departments have furnished topics for discussion and investigation during the past year. These will be continued, and in addition the principal plans to study extra school conditions to discover from what sort of home conditions the pupils come and into what lines of gainful occupations it will be possible for them to enter. As a means of bringing the school in closer service to the people, I should like to see inaugurated at the high school information bureaus, or, for want of a better name, educational clinics that might, for the asking, furnish anyone who might wish to know practical information about the procedure in buying houses, improving home conditions from a sanitary and artistic point of view, house economy, etc.

I shall, at a subsequent date, submit for your consideration a detailed plan with reference to these topics.

Respectfully submitted,

MASON A. HAWKINS,
Principal.

PAPERS RELATING

TO THE

COLORED HIGH SCHOOL.

FACULTY, 1911-1912.

MASON A. HAWKINS, A. B., A. M., *Principal.*

DWIGHT O. W. HOLMES, A. B., *Vice-Principal.*

English and History

LOUISE R. M. PARM,
English.

JOSHUA E. MAXWELL, A. B.,
English and Commercial Subjects.

LUCY D. SLOWE, A. B.,
English.

MARGARET A. FLAGG, A. B.,
History.

MABEL E. WILSON, Ph.B.,
English.

WALTER H. HARRIS, Ph.B.,
English and History.

RALPH W. RECKLING, Ph.B.,
English and History.

GOUGH D. McDANIELS, Ph.B.,
English and History.

ETHEL A. LEWIS,
Stenography and Typewriting.

Mathematics

FANNIE L. BARBOUR.

MAUDELLE T. BROWN, A. B.,

ETHEL G. JONES, A. B., *Substitute,*
English.

Languages

CAROLYN B. KING, A. B.,
Latin.

ERMA B. BRUCE, A. B.,
German.

Science

DANIEL A. BROOKS, *Head of Department.*

PERRY D. G. PENNINGTON, Ph. B.,
Biology and Physical Geography.

THOMAS W. TURNER, A. B.,
Biology and Botany.

ARTHUR E. WHEELER,
Physical Training.

Manual Training

HELEN B. IRVIN, *Head of Department.*

RALPH V. COOK, M. E.,
Mechanical Drawing and Woodturning.

JOHN J. WHEELER, B. S., M. E.,
Physics and Machine Practice.

LEVI V. MOORE,
Woodwork.

JAMES A. B. CALLIS,
Printing and Freehand Drawing.

JOHN H. MURPHY, JR.,
Printer.

Domestic Science and Art

CARRINGTON L. DAVIS, A. B., *Head of Department.*

GEORGIANA H. FIELDS,
Domestic Science.

ETHELYN G. HENRY,
Domestic Art.

BEULAH S. WILDER,
Domestic Art.

Clerk

ANNIE E. SMITH.

TABLE SHOWING ENROLLMENT, ETC., FOR THE YEAR 1911–1912.

	Boys.	Girls.	Total.
Number of new pupils admitted during year	181	406	587
Number of pupils admitted by promotion (February, 1912)	36	78	114
Total number of pupils during year	217	484	701
Number of pupils who left and re-entered during the year	107	155	262
Number of pupils withdrawn during year	177	268	445
Number of pupils promoted to Training School	1	20	21
Number pupils graduated during year:			
Academic	25	43	68
Special Two-Year Course	0	11	11
Number of pupils in school June 30, 1912:			
Belonging	123	316	439
In Care	161	380	541
Average attendance of pupils during year			527.5
Average number of pupils belonging during year			552.4
Percentage of attendance during year based on average number belonging			95.4

Table showing number belonging, average attendance, and percentage of attendance for each month during the year.

Months, 1911–1912.	Number Pupils Belonging (Average).	Present (Average) Number Pupils.	Percentage of Attendance.
September	550.9	537.5	97 5
October	558.1	542.4	97 2
November	547.5	525.8	96 0
December	532.6	505 0	94.8
January	518.3	487.4	94 0
February	605.8	582.9	96 2
March	590.5	563 8	95.4
April	568 1	539 3	94.9
May	541.5	515.1	95 1
June	510.8	476.6	93.3
Average	552.4	527 5	95.4

Table showing the subjects taught in the Colored High School, number of classes in each subject, and the number of pupils pursuing each subject.

Subjects.	First Year.		Second Year.		Third Year.		Fourth Year.	
	Number of Classes.	Number of Pupils.	Number of Classes.	Number of Pupils.	Number of Classes	Number of Pupils.	Number of Classes.	Number of Pupils.
Algebra	7	220	.....	.....	.....	.....	.....	.....
Benchwork	7	101	*	1	.....	.....	*	2
Biology	.....	.....	3	91	2	43	2	58
Bookkeeping	1	10	1	11	*	9	*	6
Chemistry	.....	.....	.....	.....	1	22	.....	.....
Commercial Arithmetic	3	57	.....	.....	*	6	*	10
Domestic Art	9	188	5	97	4	72	*	9
Domestic Science	9	188	4	88	4	72	1	8
English	10	323	5	151	4	104	3	66
Forging	.....	.....	2	11	.....	.....	.....	.....
Free-hand Drawing	9	298	4	140	1	19	*	3
Geometry	.....	.....	4	111	.....	.....	.....	.....
German	2	90	2	45	2	42	*	8
History	4	154	2	51	4	89	3	72
Latin	4	155	2	72	*	13	.....	.....
Machine Practice	.....	.....	.....	.....	*	9	*	11
Mechanical Drawing	7	84	4	37	.....	.....	.....	.....
Physical Geography	2	48	.....	.....	.....	.....	.....	.....
Physics	.....	.....	.....	.....	3	57	2	26
Physiology	1	36	.....	.....	.....	.....	.....	.....
Physical Training	10	220	1	12	4	96	4	69
Printing	1	5	.....	.....	.....	.....	.....	.....
Stenography	.....	.....	*	1	*	1	*	5
Typewriting	.....	.....	*	2	*	33	*	38
Woodturning	*	1	2	14	.....	.....	*	3

*Means "not taught as a class."

GRADUATES, 1912.

Nellie Donaldson Ackwood
Ernestine Alice Adams
Mary Ridgeway Allen
Junius Tolly Banks
Frank Edgar Barnes
Nettie Valore Barnett
Aletha Annie Bennett
Hester Maud Biddle
Winfield Murray Bishop
Ella Louise Blackwell
Daniel Edward Boley
Martha Anita Booze
Ada Correna Brown
Thomas William Buckner
James Hughtett Carter
Harry Leroy Carroll
Robert Samuel Chase
Sadie Virginia Clarke
Stewart Rochester Cooper
Albert Aquilla Cornish
Morrison Leroy Davage
Margaret Rebecca Rosalia Decoursey
Henry Oliver Deman
Bessie May Doram
Lloyd Jeremiah Farmer
Edward Franklin Frazier
Arnett Joseph Frisby
Cecilia Lillian Gaines
Annie Givins Gent
Roland Oscar Groomes
Edna Elizabeth Hall
Hattie Belle Hicks
Sadie Belle Howard
Raymond Hunt
Emma Virginia Jackson
Isaiah Johnson
Jeannette Elizabeth Johnson
Willard Joseph Johnson
Mabel Edna Locks
Thomas Herbert McCormick
Minnie Iola Martin
Beal Henry Mason
Nellie Augusta Moore
George Lee Murray
Georgiana Nash
Ada Edwin Virginia Penn
Edna May Rhodes
Margaret Lavinia Rusk
Alice Eugene Russell
Esther Dyson Smith
Jane Contee Smith
Myrtle Garnett Smith
James Samuel Soyles
Marie Agnes Cecilia Spriggs
Walter Payne Stanley
Ruth Miriam Sydes
Katherine Gwathney Taylor
Claudia Elizabeth Thomas
Hattie Dreaden Cecilia Tilghman
Ernest Tinsley
Louisa Helena Thompson
Ethel Annie Learetta Turner
Adelaide Eulalia Waller
Ella May Waring
Edna Lavinia Waters
Virginia Lucia Williams
Mary Anita Woodland
Flossie Belle Wright

TWO-YEAR SPECIAL CLASS.

Annie Elizabeth Bolden
Mary Irene Cole
Eslanda Clara Cardozo
Alice Corinne Hammond
Mary Theresa Jackson
Cora Irene Johnson
Geneva Rebecca Elizabeth Lewis
Lydia Ann Scott
Winifred Drusilla Waters
Edna Mae Wells
Bessie Calvert Wilson

ALUMNI MEDAL.

Hester Maud Biddle

RANKING FIRST IN SCHOLARSHIP.

Cecilia Lillian Gaines

RANKING SECOND IN SCHOLARSHIP.

Ruth Miriam Sydes

REPORT OF THE SUPERVISOR OF SCHOOL BUILDINGS.

BALTIMORE, June 30, 1912.

To the Board of School Commissioners.

GENTLEMEN: I have the honor to submit the following report for the calendar year 1911 and the scholastic year 1911-12:

NEW BUILDINGS COMPLETED IN 1911 AND TO JUNE 30, 1912.

School No. 76, Hull and Clement Streets—An addition of four classrooms and a manual training room. The building was completed and occupied in 1911. Cost of addition, $17,207.94.

School No. 2, Stiles and Gough Streets—A first-class, modern three-story and basement building, containing twenty-four classrooms of the standard size; an assembly hall, manual training and cooking-rooms; heating and ventilating plant and boys', girls' and teachers' toilets. The building was completed and occupied in the fall of 1911. Cost of building, $106,221.97.

School No. 51, Windemere Avenue, Waverly—A first-class, modern three-story and basement building, containing twenty-four classrooms of the standard size; an assembly hall, manual training and cooking-rooms; heating and ventilating plant and boys', girls' and teachers' toilets. The building was completed and occupied in the fall of 1911. Cost of building, $150,366.

School No. 60, Francis and Clifton Streets—An eight-room addition of the standard size with all modern appointments. The building was completed and occupied in June, 1911. Cost of addition, $56,110.

School No. 13, Patterson Park Avenue and McElderry Street—A four-room addition of the standard size with all modern appointments, an assembly hall and boys,' girls' and teachers' toilets. The building will be ready for occupancy in September, 1912. Cost of addition, $21,944.65.

School No. 63, Ninth and Northwest Streets—Addition of eight rooms of the standard size with all modern appointments; assembly hall in the basement, manual training and cooking-rooms and boys', girls' and teachers' toilets. The building was completed and occupied in June, 1912. Cost of addition, $44,576.

School No. 64, Liberty Road and Maine Avenue, Forest Park—Addition of ten rooms of standard size with all modern appointments; assembly hall, boys', girls' and teachers' toilets and manual training and cooking-rooms. The building was completed and occupied in June, 1912. Cost of building, $57,393.30.

Buildings Now Under Construction.

School No. 70, William Street and Warren Avenue—Lot 190 feet by 140 feet; building 82 feet by 161 feet. When completed this building will consist of twenty-four classrooms of thoroughly modern design and equipment. It will be ready for occupancy in the fall of 1912.

Baltimore Polytechnic Institute, North Avenue—The new wings are expected to be ready for occupancy in September, 1913. When completed there will be accommodations for 1,300 pupils; thirty-six classrooms, four laboratories (mechanical, electrical, chemical and physical), eight drawing rooms, eight shops, library and an assembly hall.

School No. 22, Hamburg and Scott Streets—Lot 163 feet by 200 feet; building 83 feet 6 inches by 179 feet 2 inches. When completed this building will be a twenty-four classroom structure of thoroughly modern design and equipment. It will be ready for occupancy in the latter part of 1913.

School No. 6, Ann Street, near Canton Avenue—Lot 144 feet by 183 feet; building 83 feet 11 inches by 178 feet 5 inches. When completed this building will consist of sixteen classrooms of thoroughly modern design and equipment. It is expected to be completed by September, 1913.

School No. 27, Fayette and Chester Streets—Lot 115 feet by 182 feet 9 inches; building 81 feet 4 inches by 159 feet 4 inches. When completed this building will consist of twenty-four classrooms of thoroughly modern design and equipment. It is expected to the completed by September, 1913.

School No. 83, Lakewood and Philadelphia Avenues—The drawings for an eighteen-room addition to this building are about completed, which will enlarge the capacity of this school to forty-two classrooms. The contract will be let early in 1913.

School No. 99, North Avenue and Washington Street—The drawings for a ten-room addition are about completed, thereby providing for a total of thirty-three classrooms. The contract will be let early in 1913.

Portable Buildings.

No new portable buildings were purchased during 1911-12. Two portables were removed from No. 63 and one placed in the boys' yard and one in the girls' yard of School No. 77, Washington street, near Fayette street, for the use of two classes of School No. 27. Two portables were removed from the Watson lot on Penhurst avenue to the corner of Penhurst and Garrison avenues. Another portable was removed from School No. 118 and placed in yard of School No. 83, Lakewood avenue and Orleans street.

The usual tables, respecting number of employees and fuel and its distribution, accompany this report.

Respectfully submitted,

Henry R. Davis,
Supervisor of School Buildings.

TOTAL NUMBER EMPLOYEES UNDER THE SUPERVISOR OF BUILDINGS, JUNE 30, 1912.

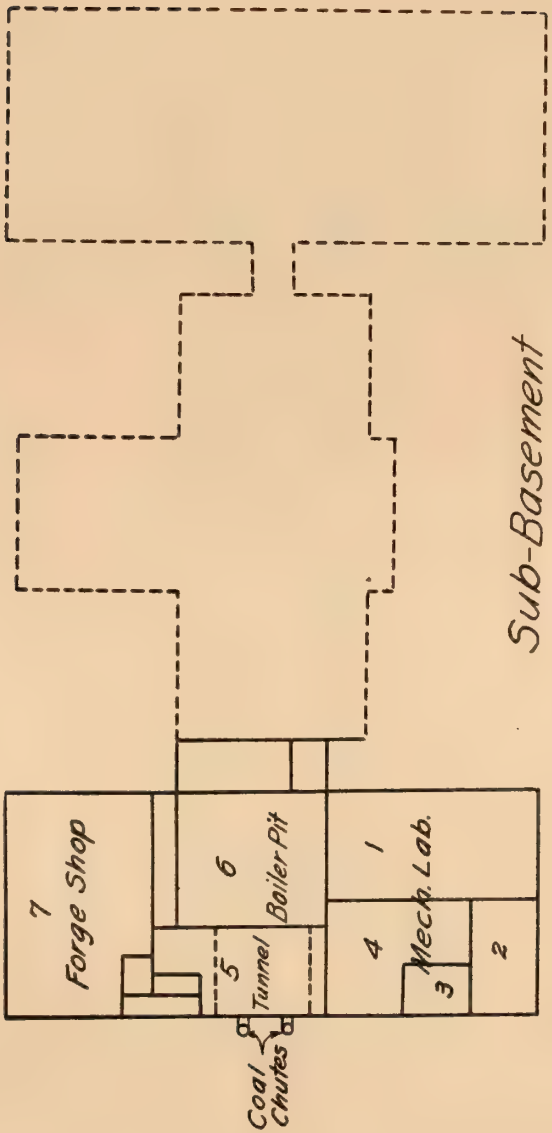
Engineers	18
Firemen	78
Janitors	17
Janitresses	217
Watchmen	1
Total	331

QUANTITY OF FUEL CONSUMED FROM JUNE 15, 1910, TO JUNE 15, 1911.

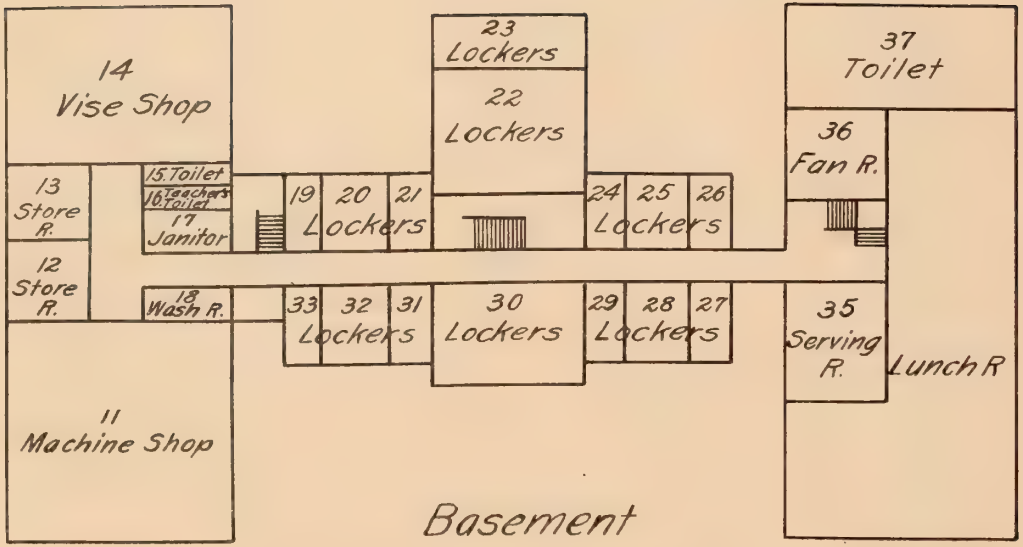
No. 1 Hard Coal, tons	541	
No. 2 Hard Coal, tons	3,863½	
No. 3 Hard Coal, tons	2,906½	
Total of Hard Coal, tons		7,311
Sunbury Coal, tons		89½
Bituminous Coal, tons		3,013¾
Wood, cords		249¾

QUANTITY OF FUEL CONSUMED FROM JUNE 15, 1911, TO JUNE 15, 1912.

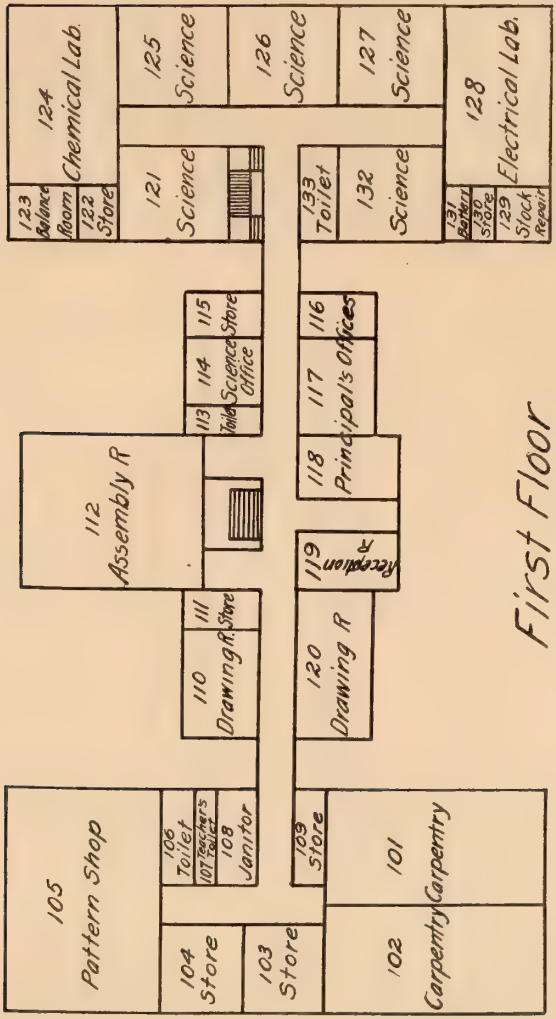
No. 1 Hard Coal, tons	458¼	
No. 2 Hard Coal, tons	3,740	
No. 3 Hard Coal, tons	2,542½	
Total of Hard Coal, tons		6,740¾
Sunbury Coal, tons		47½
Bituminous Coal, tons		3,387¼
Wood, cords		249



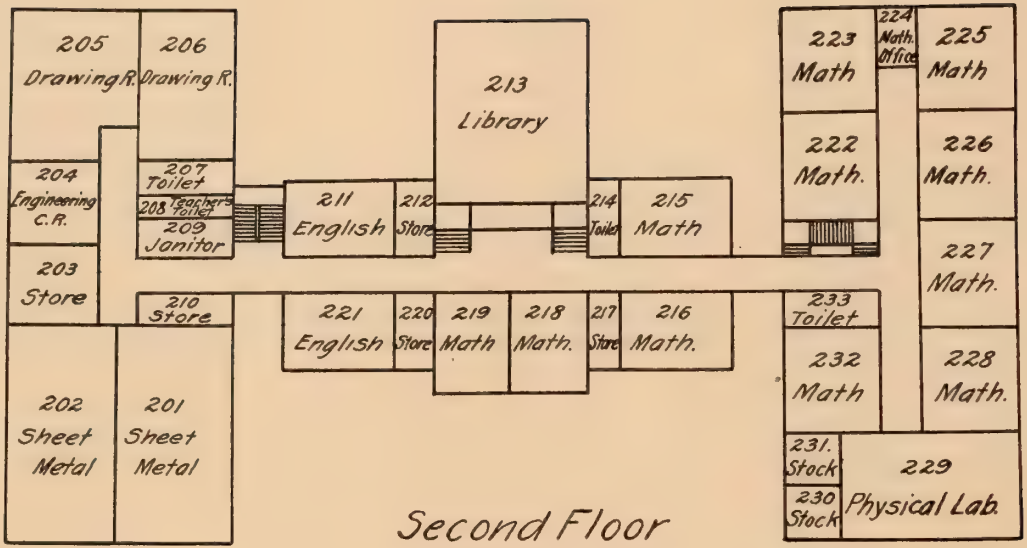
NEW BALTIMORE POLYTECHNIC INSTITUTE.



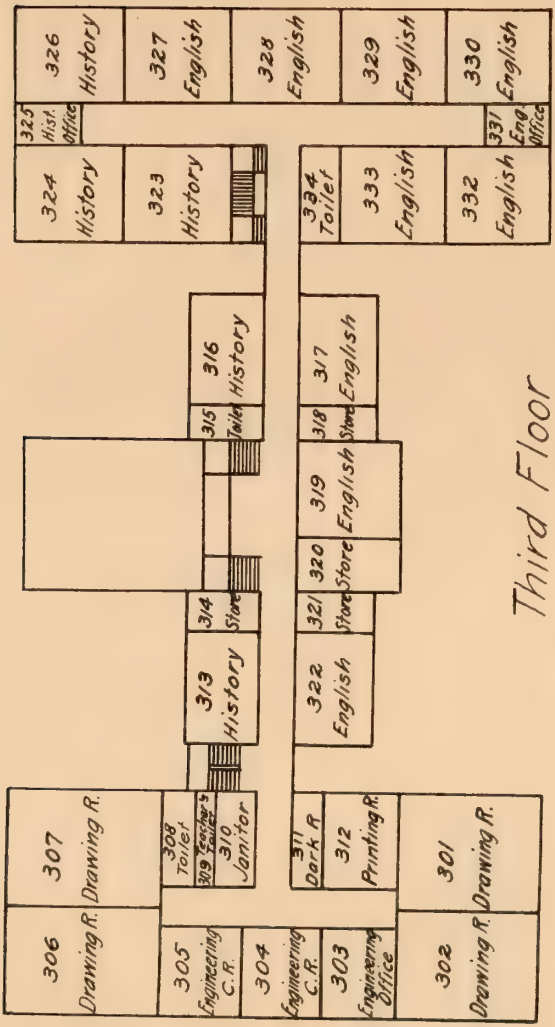
NEW BALTIMORE POLYTECHNIC INSTITUTE.



NEW BALTIMORE POLYTECHNIC INSTITUTE.



NEW BALTIMORE POLYTECHNIC INSTITUTE.



NEW BALTIMORE POLYTECHNIC INSTITUTE.

APPENDIX.

A STUDY OF THE MEASUREMENT OF THE ARITHMETICAL ABILITIES OF SEVEN HUNDRED AND SIXTEEN PUPILS IN NINETEEN CLASSES, SIXTH A GRADE, BY RESULTS OBTAINED FROM STONE'S TEST.

PRELIMINARY REPORT.

JULY 3, 1912.

A Study of the Measurement of the Arithmetical Abilities of Seven Hundred and Sixteen Pupils in Nineteen Classes, Sixth A Grade, By Results Obtained From Stone's Tests.

By EDWIN HEBDEN, A. M.

The main reason for making this study is the recognized need for more exact knowledge of the effectiveness of our course of study in arithmetic and the teaching of this branch, as shown and more accurately measured by the resulting work of the pupils.

The development and growth of the application of scientific measurements to educational products was so clearly presented by Dr. Leonard P. Ayres in his address delivered before the Harvard Teachers' Association, Cambridge, Mass., on March 9, 1912, and now printed in full as No. 116 of the publications of the Russell Sage Foundation, Division of Education, under the title, *The Measurement of Educational Processes and Products,* that it seems desirable to quote Dr. Ayres somewhat at length:

"Fifteen years ago the school superintendents of America, assembled in convention in Indianapolis, discussed the problems then foremost in educational thought and action. * * * With striking unanimity they voiced the conviction that any attempt to evaluate the teaching of spelling—the subject then under discussion—in terms of the ability of the pupils to spell was essentially impossible and based on a profound misconception of the function of education.

"Last week in the City of St. Louis, that same association of school superintendents, again assembled in convention, de-

voted forty-eight addresses and discussions to tests and measurements of educational efficiency. The basal proposition underlying this entire mass of discussion was that the effectiveness of the school, the methods, and the teachers must be measured in terms of the results secured.

"This change represents no passing fad or temporary whim. It is permanent, significant, and fundamental. It means that a transformation has taken place in what we think as well as in what we do in education. It means that education is emerging from among the vocations and taking its place among the professions. * * *

"This new attitude of educators towards education means that we have ceased exalting the machinery and have commenced to examine the product. We have awakened to a startled realization that in education, as in other forms of organized activity, applied science may avail to better even those processes that have rested secure in the sanction of generations of acceptance.

"The transformation now taking place in education means that it is our privilege to be part of a movement that is working changes comparable to those that are now remaking almost every form of industrial activity. * * * The ideals and processes of the application of the scientific method in education are in salient respects similar to those that are reshaping the processes of industry. In education, as in industry, the scientific idea is at base the analytic scrutiny, exact measuring, careful recording, and judgment on the basis of observed fact. Swiftly, silently, and almost without warning, the scientific methods have invaded the educational camp and have begun to demolish the hosts of theory, legend, superstition, and tradition. The time has already passed for us to query whether or not we shall endorse and adopt the new scientific criteria of exact measurement and judgment by results. The new method is upon us, and the question at issue is no longer 'Shall we adopt it?' but rather 'How shall we utilize it?' * * *

"The new method which judges processes in terms of results has been by no means confined to the development of record forms and the perfecting of new devices in the statistics of school administration."

Dr. Ayres cites cases—one of an investigation made three years ago of the problem as to the best age at which to send a child to school. Definite and positive replies were received from nearly every head of a college department of pedagogy in the country; but when asked on what the assertion was based, "in every case save one the answer was that the writer was positive of the correctness of his views, but had no evidence with which to substantiate them." So rapid is the progress since made that a recent number of *Education* contained "a study of that problem based on the school histories of more than twenty-five thousand children."

Another case citied is the investigation made into the claim "that children who pass through the kindergarten subsequently complete the elementary grades in less time" than do those who did not have the kindergarten training. "Replies were received from the superintendents of seventy-two cities." In no case was there any actual evidence upon which these replies were based. "That result was typical of the supremacy of speculation over evidence in education." * * * "This situation no longer exists; for within the past three years extensive investigations have been conducted, comparing the school records of many thousands of children who have had kindergarten training with the school records of the children in the same systems who have not had kindergarten training."

"The new scientific method has not been confined to the investigation of isolated problems. In city after city across the country its aid is being invoked to evaluate educational results through the medium of the school survey. Unheard of only a few years ago, these city-wide educational inquiries have been made or are in progress in such cities as Boston, Baltimore,

Boise, Montclair, Orange, and New York. Already they are being planned for in other localities, and one embracing the system of the entire State of Wisconsin is now under way." * * *

"No sooner was this doctrine," the measurement of educational products, "fully formulated, than there appeared a set of scientific students of education, presenting measuring scales with which to gauge the performances of the children in their classroom work. Thorndike with his measuring scales for hand-writing, Stone and Courtis with their standardized tests in arithmetic, and Hillegas with his method of measuring the quality of English composition" furnish us with carefully worked out means for this scientific measurement.

We are fortunate, therefore, in having available the test which Dr. Stone has already applied in twenty-six school systems,* and which he has worked out so fully in his study entitled *Arithmetical Abilities and Some Factors Determining Them*. While serving with the main purpose of this study, means are also afforded thereby for comparing the results obtained in our own city with those of the twenty-six systems measured by Dr. Stone.

Every acknowledgment is due and gratefully accorded to Dr. Stone for his kindness in permitting the use of his standardized tests, his figures, and other data and the great aid this has been in making this study. The plan presented by him was followed very closely, so that the comparison between our figures and those obtained by him elsewhere might be the more readily and easily made; but some of the points covered by Dr. Stone will not be included in this study at this time.

In order that this comparison should be made upon the same basis, the questions of Dr. Stone's test were given exactly as he prepared them. The same time allowance was made, and all other conditions were followed as closely as possible.

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*For a list of these cities, see Stone's *Arithmetical Abilities*, etc., pages 7 and 8, also given on pages 195 and 196 of this report.

The data for this particular study was obtained from nineteen classes of children in all sections of this city, in the schools named below:

School	Grade and Class.	No. Pupils Engaged.	School	Grade and Class.	No. Pupils Engaged.
No. 14	6-A	40	No. 75	6 A	34
No. 47	6-A	34	No. 77	6-A	24
No. 53	6-A	39		6-B	19
No. 54	6-A	35	No. 78	6-A	38
No. 60	6-A	40	No. 78	6-A	40
No. 60	6-A	20	No. 80	6-A	42
	7-B	19	No. 84	6-A	13
No. 61	6-A	38		7-B	23
No. 61	7-B	34	No. 94	6-A	15
No. 63	6-A	39		7-B	21
No. 68	6-A	34	No. 99	6-A	38
No. 71	6-A	37			

It will be noticed that the pupils selected were, with one exception, those who were about to complete the sixth year's work or who had very recently done so. In those cases where 7-B children were included, either they had been recently promoted from the sixth grade, as in School No. 61, or, in addition thereto, they were still working in the same room with a section of 6-A pupils, as in School No. 60. The one exception in which 6-B children were included, was School No. 77. In this class the 6-B children had been working in sixth grade work somewhat longer than a half year.

In the selection of classes, the aim was to include in the test all kinds of pupils. Some of the classes were selected because they contained the stronger pupils, some the weaker, others a mixture of strong and weak; some containing pupils almost entirely of native-born parentage, others in which the foreign element largely predominated; some composed of children of the poorer classes, some of more wealthy and refined home environment. The products of pupils living under these differing con-

ditions offer an opportunity for a most valuable study of the effect of social environment upon the ability and degree of excellence of achievement to the extent shown by this one measurement. It must be definitely remembered that the results of any single test must not be considered as absolutely conclusive upon all points. However, it is reasonable to expect that by the end of six years' work every school system should have produced at least good ability in all normal minded pupils to add, subtract, multiply, and divide simple numbers and to reason correctly simple problems of everyday experience such as are given in this test. It is therefore claimed, "that the scores made by the respective systems afford a reliable measure of the products of their respective procedures in arithmetic."

The tests were given on April 17, between 9 a. m. and 1 p. m. Each of the five assistant superintendents and the writer gave the tests in person. Dr. Stone's directions to the pupils were followed as closely as conditions allowed. The papers were collected at once and brought to the Administration Building for scoring and study by the writer.

In formulating his tests Dr. Stone had the assistance of Prof. Smith, and the content of each test was so organized as to present a definite purpose, accurately measurable. Each test was tried out with pupils to determine the most reasonable time limit as well as arrangement of problems. In Fundamentals the main purpose was the determination of the ability of pupils completing the sixth grade, in addition, subtraction, multiplication, and division. The first six questions embodied all the difficulties of the four fundamental operations, but the test was made purposely too long (fourteen examples) for any except the brightest, most rapid pupil to finish in the twelve-minute limit. This not only kept them from getting out of work but also provided means to measure their total ability, including rapidity. In Reasoning the main purpose was the determination of the ability of these children to reason in arithmetic. To this end the problems had been selected and

arranged after careful trial with pupils in the classroom and were weighted according to the degree of difficulty experienced by the children in this preliminary study by Dr. Stone. Dr. Stone's weighting and arrangement have been accepted and used throughout this study upon his authority (cf. *Arithmetical Abilities,* pages 10 and 18). This test also was made purposely so long that but very few of the most rapid children might be expected to complete it in the fifteen-minute limit. In this, also, the first six problems embodied all the conditions deemed essential. Each of the two tests was printed separately, and each pupil was furnished with a copy. A sample of each test is shown below, so as to show the exact form in which each went into the hands of the pupils.

BALTIMORE PUBLIC SCHOOLS.

Work as many of these problems as you have time for; work them in order as numbered.

1. Add
   2375
   4052
   6354
   260
   5041
   1543

2. Multiply 3265 by 20.
3. Divide 3328 by 64.
4. Add
   596
   428
   94
   75
   302
   645
   984
   897

5. Multiply 768 by 604.
6. Divide 1918962 by 543.
7. Add
   4695
   872
   7948
   6786
   567
   858
   9447
   7499

8. Multiply 976 by 87.
9. Divide 2782542 by 679.
10. Multiply 5489 by 9876.
11. Divide 5099941 by 749.
12. Multiply 876 by 79.
13. Divide 62693256 by 859.
14. Multiply 96879 by 896.

BALTIMORE PUBLIC SCHOOLS.

Solve as many of the following problems as you have time for; work them in order as numbered.

1. If you buy 2 tablets at 7 cents each and a book for 65 cents, how much change should you receive from a two-dollar bill?
2. John sold 4 Saturday Evening Posts at 5 cents each. He kept ½ the money and with the other ½ he bought Sunday papers at 2 cents each. How many did he buy?
3. If James had 4 times as much money as George, he would have $16. How much money has George?
4. How many pencils can you buy for 50 cents at the rate of 2 for 5 cents?
5. The uniforms for a baseball nine cost $2.50 each. The shoes cost $2 a pair. What was the total cost of uniforms and shoes for the nine?
6. In the school of a certain city there are 2,200 pupils; ½ are in primary grades; ¼ in the grammar grades; ⅛ in the high school and the rest in night school. How many pupils are in the night school?
7. If 3½ tons of coal cost $21, what will 5½ tons cost?
8. A newsdealer bought some magazines for $1. He sold them for $1.20, gaining 5 cents on each magazine. How many magazines were there?
9. A girl spent ⅛ of her money for car fare, and three times as much for clothes. Half of what she had left was 80 cents. How much money did she have at first?
10. Two girls receive $2.10 for making button-holes. One makes 42, the other 28. How shall they divide the money?
11. Mr. Brown paid one-third of the cost of a building; Mr. Johnson paid one-half the cost. Mr. Johnson received $500 more annual rent than Mr. Brown. How much did each receive?
12. A freight train left Albany for New York at 6 o'clock. An express left on the same track at 8 o'clock. It went at the rate of 40 miles an hour. At what time of day will it overtake the freight train if the freight train stops after it has gone 56 miles?

As stated above, the time allowed for the test in Fundamentals was limited accurately to twelve minutes, and for the test in Reasoning the limit was fifteen minutes. All directions were given orally.

The scoring of all the papers was done by the writer, with the assistance of one person who scored only those examples which were entirely correct. All examples in which the number of credits had to be determined by the amount or the character of the work were scored by the writer, who also verified the scoring of his assistant. The credits for each example were the same as those given by Dr. Stone and were made after communication with him upon this matter. In the Fundamentals each step in the process of working any of the examples was given a score of 1: for instance, in example 1 addition received a score of 4, being 1 for each column correctly added; in example 6 division received a score of 4, multiplication a score of 4, and subtraction a score of 3, each step thus receiving its due credit; and so for the other examples. Where a mistake was made in copying the example, no deduction was made but credit was allowed for each step correctly worked in accordance therewith. In Reasoning a score of 1 was given for each example where the reasoning was correct, even though there were errors in the computation; where the reasoning was right in part and in part wrong, a corresponding fractional credit was given and the mistake also counted. This method of scoring was followed so that the resulting credits might stand definitely for that which they were intended to show.

The time remaining until the close of the school year is much too short to complete the entire study in all its points. A later report will discuss the achievements of the nineteen classes as such, and of individual pupils. Variably among the classes and among individual pupils will also be presented and some effort made to discuss its significance. Other factors will present themselves that will no doubt aid in evaluating our work. It is thought best, however, to give this preliminary report for the purpose of presenting in a broad way some measurements of the products of our teaching the essentials of arithmetic. It will, however, present definitely the relative effectiveness of the work in Baltimore, as compared with

that of the twenty-six other systems above mentioned, and thereby show conditions which will serve as a starting point for further study.

Explanation of the Tables.

The remaining portion of this preliminary report will be devoted to a somewhat broad analysis of the data obtained from the tests and presented in the tables which follow. It is to be understood rather as a reconnoissance of the field preparatory to the closer, more critical study that should follow later. As the entire study is based upon these tables, it seems well to quote Dr. Stone, with whose opinion the writer fully agrees, as to their importance and use:

"In proceeding to the part of the study that is necessarily largely composed of tables, it may be well to state the position of the author regarding the partial interpretations offered in connection with the tables. It is that the entire tables give by far the best basis for conclusions; that for a thorough comprehension of the study they should be read quite as fully as any other part; and that they should be regarded as the most important source of information rather than the brief suggestive readings which are liable to give erroneous impressions, both because of the limitations of a single interpretation and the lack of space for anything like full exposition."

It will be noticed in all the tables that the classes are designated by Roman numerals from I to XIX, simply to identify each class throughout the entire study. No significance should be attached to the order in which the classes are thus designated, as will be readily seen by noting in any table that the class designated I does not rank first, nor class XIX last. The method of assigning these numerals to the several classes was entirely haphazard. The order of achievement, as shown by the scores for each portion of the work considered, is found in each separate table.

The score of each class is given as such and so continued throughout the study, even though the number of pupils engaged was less than 100, the number chosen by Dr. Stone as the basis of his scoring. This is met, however, by reducing the score made by each class to the basis of 100. For instance, in Table II*a* the lowest Baltimore class (VII) has a score of 3,445. This was obtained in the following way: the total score actually made by the forty pupils in this class was 1,378; this score multiplied by 100 and divided by 40 gives the score of 3,445 upon the basis of 100 pupils. This was necessary in order to have the same base upon which to compare the scores of the Baltimore classes with one another and with the scores made in other cities. Besides this a score is given in the tables for the total number of pupils in our city who took the test (716), similarly reduced to the basis of 100 pupils. For the sake of convenience this score representing all the pupils will hereinafter be designated by the term *composite.*

It is desirable and it seems reasonable and proper to compare our classes thus scored with the systems in other cities. In any one system it may be safely assumed that there will be as many different kinds of pupils as will be found in any or all other systems. The comparison then between scores of the classes in Baltimore and those of the other systems, and more particularly between the median class in Baltimore and the median of all the other systems engaged, is not altogether inadmissible. The comparison between the composite score for this city and the scores for the other systems is more nearly upon the same basis. Certainly the comparison between the per cent of deviations of our classes from their median and the similar deviations of the other systems is entirely admissible and upon a similar basis. It is to be expected, however, that classes in the one city working under one course of study and uniform supervision will present much more evenness of product than will the systems of different

cities working under different courses of study and different kinds of supervision. This will be noticed further in the analysis of the tables.

The comparison of our classes as such, and as a whole, with other cities serves a good purpose, whatever be the outcome. The object is to get the proper viewpoint from which to start the study of our own conditions. The wider the perspective, the broader the vision. If our classes show a marked inferiority to the ability developed in the greater number of other cities it would mean that there must be some radical treatment in our own case. If our classes show a marked superiority to other cities it would mean that we have in general a sound base to start with and we shall need to look for such amendments only as will serve to overcome any weaknesses or defects found. In either case the time given to the teaching of this branch should receive due consideration. There is, of course, no intention or desire to make any invidious comparison between Baltimore and the other cities or between classes in this city.

The tables are taken up in such manner as to make the order of treatment as follows: the achievements of Baltimore classes compared with the twenty-six systems of other cities; the achievements of the 716 pupils compared with the other cities; the achievements of our classes compared with one another; the achievements of individual pupils in the several classes.

Throughout this report, whenever other cities are mentioned those twenty-six cities are meant which were tested by Dr. Stone and enumerated in his *Arithmetical Abilities, etc.* (pages 7 and 8). For convenience and ready reference it will probably be better to note them here:

Batavia, N. Y.
Decatur, Ill.
Ellwood, Ind.
Ethical Culture School, New York City.
Francis W. Parker School, Chicago, Ill.

Horace Mann School, Columbia University, New York City.
Indianapolis, Ind.
Jersey City, N. J.
Kokomo, Ind.
Linné School, Chicago, Ill.
Medford, Mass.
Montclair, N. J.
Muncie, Ind.
Natick, Mass.
Observation School, State Normal, Providence, R. I.
Passiac, N. J.
Providence, R. I.
Rochester, N. Y.
Schools No. 40 and No. 50, Manhattan, New York City.
Speyer School, Columbia University.
Syracuse, N. Y.
Training School, State Normal, Hyannis, Mass.
University Elementary School, University of Chicago, Chicago, Ill.
Waltham, Mass.
Waukegan, Ill.
Yonkers, N. Y.

The Roman numerals used to designate the above systems are those given by Dr. Stone. They were assigned without any reference to the order of achievement by the several systems or to the foregoing alphabetic arrangement.

TABLES Ia AND IIa—Showing scores and relative position in order of achievement for nineteen Baltimore classes compared with twenty-six systems of other cities. All problems counted.

Ia—REASONING.				IIa—FUNDAMENTALS.			
Baltimore.		Other cities.		Baltimore.		Other cities.	
Classes in order of achievement and relative position.	Scores reduced to the basis of 100.	Systems in order of achievement and relative position.	Scores on basis of 100.	Classes in order of achievement and relative position.	Scores reduced to the basis of 100.	Systems in order of achievement and relative position.	Scores on basis of 100.
		XXIII	356			XXIII	1,841
		XXIV	429			XXV	2,167
		XVII	444			XX	2,168
		IV	464			XXII	2,311
		XXV	464			VIII	2,747
		XXII	468			X	2,749
		XVI	469			XV	2,779
		XX	491			III	2,845
		XVIII	509			I	2,935
		XV	532			XXI	2,951
		III	533			II	2,958
		VIII	538			XVII	3,042
		VI	550			XIII	3,049
		Median	551			Median	3,111
		I	552			VI	3,173
		X	601			XI	3,261
II	608.5					IX	3,404
		II	615			XII	3,410
V	625.			VII	3,445.		
		XXI	627			XXIV	3,513
		XIII	636	II	3,514.		
XV	647.7					XIV	3,561
		XIV	661			IV	3,563
		IX	691			V	3,569
XII	702.3					XXVI	3,682
XIV	728.9					XVI	3,707
XVII	730.8					XVIII	3,758
		VII	734			VII	3,782
		XII	736	V	3,841.3		
XVI	744.7			XVII	3,860.4		
		XI	759	VIII	4,079.4		
I	765.			VI	4,081.9		
VII	772.					XIX	4,099
		XXVI	791	XV	4,187.5		
*	803.2			X	4,191.8		
XVIII Median	804.8			I	4,460.		
X	805.6			XVI Median	4,566.7		
VIII	821.2			*	4,610.5		
III	826.5			XI	4,658.9		
		XIX	848	XIV	4,660.6		
IV	866.7			IX	4,731.5		
VI	907.4			XIII	4,742.9		
XIX	913.6			XIX	4,819.4		
		V	914	IV	5,296.9		
IX	959.4			XVIII	5,709.2		
XI	967.4			III	6,252.6		
XIII	1,017.1			XII	6,544.1		

*The 716 pupils reduced to the basis of 100.

Comparison With Other Systems.

Table I*a* gives the scores made in reasoning, all problems being counted, by each of the nineteen classes in this city and by each of the other twenty-six systems. The scores in parallel columns are so arranged as to show the order in which these classes would fall if all the scores were arranged in order in one column. The lowest score is placed at the top of each column, the highest at the bottom; thus class II made a score of 608.5, the lowest, class V—625, the next lowest, and so on up to class XIII—1,017.1, the highest score. It will be seen that all the Baltimore classes scored above the median of the other systems. By this median is meant the number below which and above which there are an equal number of classes or systems. The lowest score comes between the eleventh and twelfth in order among the other systems. The median for Baltimore falls into the second place from the highest among the other systems. No Baltimore classes scored as low as the first third of the other systems; two classes scored in the upper part of the middle third; fourteen classes scored along with the highest third; and three classes made higher scores than any of the other systems.

The city as a whole, represented by the composite score is almost coincident with the median. This is particularly significant, because it shows in this instance that the median is the actual central tendency. By this composite score it is seen that two of the twenty-six systems make a higher score than Baltimore as a whole, and twenty-four make a lower score. By referring to Table I*b*, which gives the scores for the first six problems only, it will be noticed that the scores of the Baltimore classes do not exceed to so large an extent the scores of the other systems. This indicates clearly that the excess shown above when all problems are counted results from the greater amount of work done within the time limit by the Baltimore classes.

The difference between the highest and the lowest score of the Baltimore classes is 408.6, which is 50.8 per cent of their median. The difference between the highest and the lowest score of the other cities is 558, or 101 per cent of their median. This shows a variability almost exactly double that of Baltimore, which was to be expected and will be further noticed in presenting Tables III and IV.

The foregoing comparisons further indicate that our pupils show comparatively good ability in simple reasoning, along with greater rapidity.

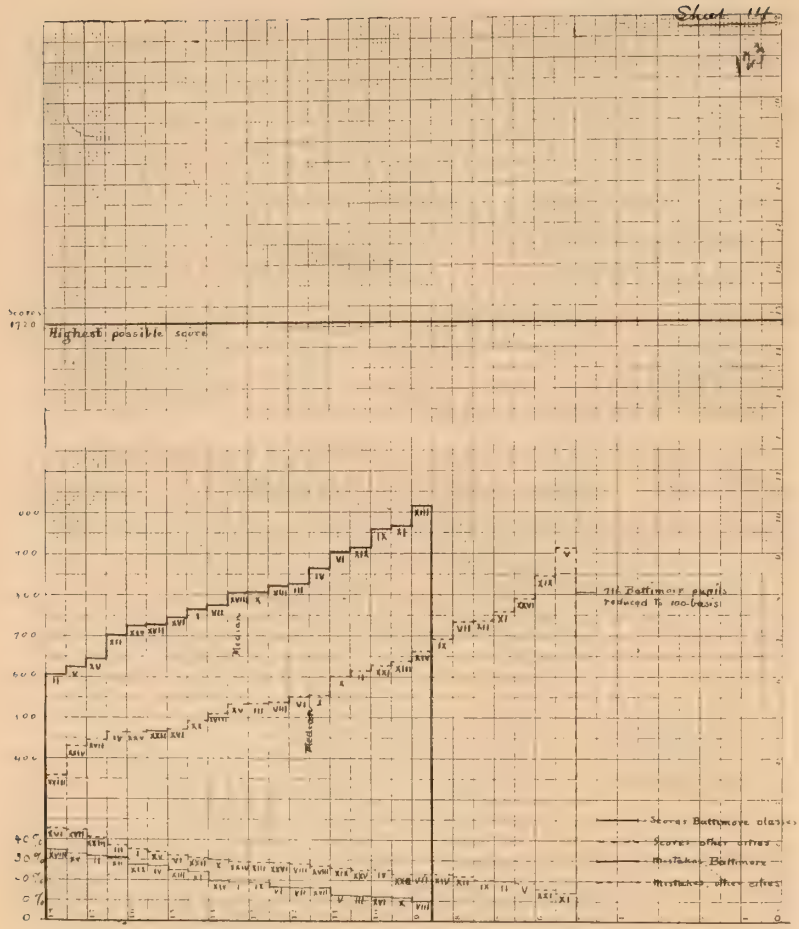

FIG. 1. Graphical illustration of Table I*a*, showing measurement of excellence by the scores made in Reasoning by nineteen Baltimore classes (6A) and by the same grade of pupils in twenty-six systems of other cities; also of Table VIII, showing similar measurements by the per cent of mistakes. All problems counted.

Figure 1 presents a graphical illustration of the foregoing table. (The lower portion of the figure, however, illustrates Table VIII, and will be explained later when comparing Table VIII with Table I*a*.) The numbers in column at the left of the figure indicates scores. The solid lines drawn horizontally are to be taken as the tops of columns extending to the bottom of the figure, showing quantitatively the work done by each class. The dashed lines are similarly drawn to show the tops of the columns which would measure the scores of the other systems. The Roman numerals identify the several classes and systems. At the extreme right of the city systems a solid line just above the 800 score shows the top of the column for the composite score of Baltimore, which on this table occupies the third place in order among the twenty-seven (including Baltimore) systems considered. The line of highest possible score (1,720) for one hundred pupils is shown above the tops of the columns for the several classes.

Table II*a* gives the scores in fundamentals, all problems being counted, for Baltimore and for the other systems, arranged in parallel columns similar to the arrangement described in Table I*a*. The lowest score for a Baltimore class falls between the seventeenth and eighteenth above the lowest of the other cities; the second Baltimore score falls between the eighteenth and nineteenth; next to the highest score of other city systems four scores of Baltimore classes are found; thirteen Baltimore classes score still higher. The median score for Baltimore is 467.7 above the highest system. The composite score, 4,610.5, is highest of the city systems by 611.5. The difference between the scores of the Baltimore classes and the other systems in the fundamentals is more marked than in reasoning.

The difference between the highest and the lowest Baltimore scores is 67.9 per cent of the median. The difference between the similar scores in other cities is 72 per cent of the median.

The variability thus shown is nearly the same. It may be accounted for in part by the fact that the teaching of the simple facts of computation is more generally effective and is easier than the teaching of reasoning, because the latter involves the reasoning power of the child, so much more difficult for the teacher to reach and develop. While, however, the variability is about the same, the level of achievement by our classes is higher as shown by the higher scores made. One reason for this higher achievement is found, as was done with the previous table, by comparing this table with that (II*b*) giving the scores for the first six problems only. Table II*b* shows that the scores of the Baltimore classes do not greatly exceed the scores of the uppermost third of the other systems. Hence, again, the large excess over the scores made by the other systems results from the greater amount of work done with all the problems within the time limit and is more marked than it was in the reasoning test.

The foregoing comparisons clearly indicate that the pupils in our nineteen classes show comparatively good ability in the computations of the four fundamentals, with greater rapidity.

Figure 2 has been drawn to illustrate graphically Table II*a*. The scale used is just one-half that used in Figure 1. The lower portion, referring to mistakes, will be considered under Table IX. Numbers are again placed at the left, so as to locate from 841, the lowest score, to 6,544, the highest. The solid lines drawn horizontally again show the tops of the several columns for the Baltimore classes, as designated. The dashed lines similarly show the scores for the systems of other cities. The line marking the top of the column for the composite score of the Baltimore classes is in the column to the right of the other cities and five spaces above system XIX, thus taking first place among the twenty-seven systems included.

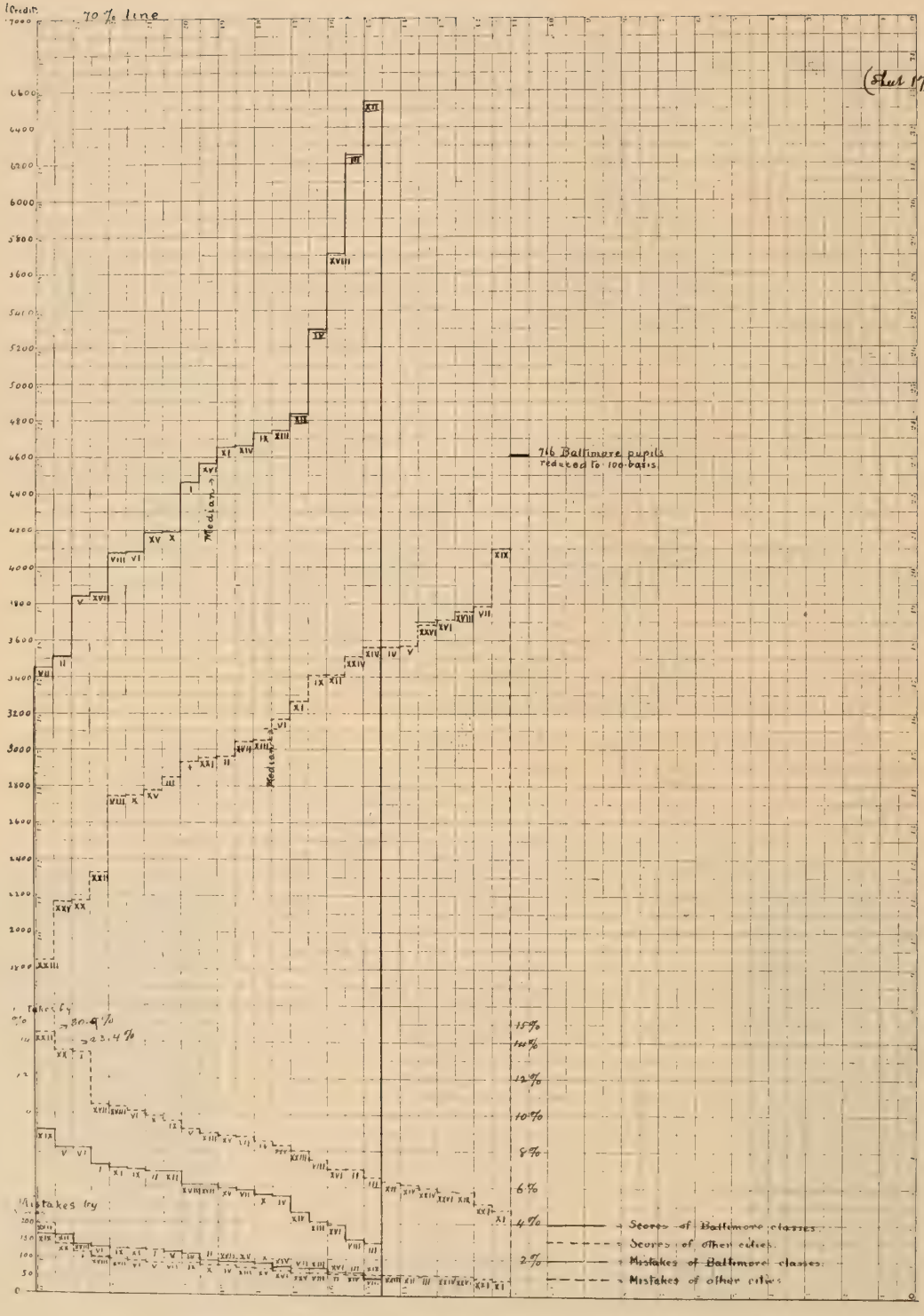

FIG. 2. Graphical illustration of Table II*a*, showing measurement of excellence by the scores made in Fundamentals by nineteen Baltimore classes (6A) and by the same grade of pupils in twenty-six systems of other cities; also of Table IX, showing similar measurements by the mistakes made in addition. All problems counted.

TABLES I*b* AND II*b*—Showing scores and relative position in order of achievement of nineteen Baltimore classes compared with twenty-six systems of other cities. First six problems counted.

I*b*—REASONING.				II*b*—FUNDAMENTALS.			
Baltimore.		Other cities.		Baltimore.		Other cities.	
Classes in order of achievement and relative position.	Scores reduced to the basis of 100.	Systems in order of achievement and relative position.	Scores on basis of 100.	Classes in order of achievement and relative position.	Scores reduced to the basis of 100.	Systems in order of achievement and relative position.	Scores on basis of 100.
		XXIII	342			XXIII	1,776
		XVII	389			XXV	2,078
		XVI	389			XX	2,084
		XXIV	396			XXII	2,116
		IV	420			X	2,383
		XXII	423			XVII	2,416
		XX	426			I	2,456
		XXV	438			XV	2,494
		III	445			III	2,495
		XVIII	452			VIII	2,501
		VI	455			XXI	2,548
		I	466			II	2,554
		VIII	468			VI	2,565
		Median	483			Median	2,578
II	487.6					XIII	2,590
XV	494.					IX	2,650
XII	495.8					IV	2,694
		XIII	497			XVIII	2,703
		X	502			XI	2,706
		IX	503			XXVI	2,710
		XV	508			XII	2,713
		XIV	514			XIV	2,717
		II	516	II	2,718.		
V	531.2			VII	2,722.5		
		XXI	532			XVI	2,728
XVIII	533.7			XVII	2,750.		
		XII	536			V	2,767
VII	536.2			XI	2,776.7		
XIV	537.6					VII	2,782
I	548.3			VI	2,787.1		
		V	549	XII	2,791.	XIX	2,791
*	554.			I	2,805.		
				XIX	2,810.9		
XIX	559.2			*	2,812.4		
		XIX	564				
XVII Median	567.3			VIII	2,812.7		
		XXVI	569	X Median	2,813.4		
XI	569.2					XXIV	2,815
X	571.6			XV	2,820.		
IV	572.			IX	2,822.7		
XIII	574.7			XIII	2,825.9		
		XI	576	IV	2,826.4		
XVI	576.1			XVIII	2,841.7		
VI	579.2			XIV	2,857.7		
III	582.6			V	2,867.5		
IX	600.			XVI	2,888.7		
VIII	603.8			III	2,897.4		
		VII	661				

*The 716 pupils reduced to the basis of 100.

Tables I*b* and II*b* are arranged in the same manner as Tables I*a* and II*a*. They give, however, scores covering only the first six problems in each test, I*b* giving the scores for reasoning and II*b* the scores for fundamentals.

The reason for compiling these tables is to show the relative ability of the pupils, irrespective of the quantity of work that could be done in a fixed time. The first six problems in each test, as hereinbefore stated, contained the essentials of that test, but in a simpler form; and it seems perfectly reasonable to expect that all normal pupils who have reached the end of the sixth year's work will be able to attempt the entire six problems and probably more within the time given. These tables also afford the means, by comparison with the tables giving the scores when all problems are counted, of showing the rapidity with which the work is done and the effect of such speed upon accuracy.

In Table I*b* it will be noticed that the lowest score of a Baltimore class falls next in order above the median of the other systems. When all problems were counted the lowest Baltimore score came third above the median score of the other systems. The highest Baltimore score in this table falls next below the highest score in the other systems, thus reversing what was shown in Table I*a*, when three scores of Baltimore classes were higher than the highest score of the other systems. The median score for our nineteen classes falls into the fourth place in the order of achievement of all the systems. In Table I*a* it ranked third in order. Our composite score comes fifth in order of achievement—also a change from third place in Table I*a*.

It will be noticed in this table that there is not so great a difference between the scores made by the Baltimore classes and the scores made by the other systems. Also, there is less difference between the classes themselves as well as between the scores of the several systems in the other cities. This was to be expected because of the smaller number of problems and the fact that every pupil would have the time to attempt all. It

will be further noticed, however, that in several instances the relative positions of the Baltimore classes have not been maintained; this point will be more definitely discussed in explaining Table III, showing the achievements of the Baltimore classes as classes and not in comparison with any other systems.

The foregoing will apply with equal force to Table II*b*, which presents the score in fundamentals counting the first six problems, and will not be repeated in explaining this table. It should be noticed, however, that the scores of the Baltimore classes in fundamentals, counting only six problems, approach very much nearer to uniformity, the difference between the highest score and the lowest score being now only 179.4, while in Table II*a*, all problems counted, the difference between the same scores was 3,099.1. In the other systems the corresponding figures are 1,039 and 2,258. Again this is reasonable, the greater evenness occurring, as it should, within the one system.

It will be of further assistance to notice the percentage of variability as shown by the foregoing tables. In Table I*b* the difference between the highest and the lowest score of Baltimore classes is 116.2, which is 20.4 per cent of their median. The difference between the highest and the lowest score of the other systems is 319, which is 66 per cent of their median, showing that the variability among the Baltimore classes is nearly 46 per cent less than among the other systems. In Table II*b* the difference between the lowest score of a Baltimore class and the highest is 179.4, which is but 6.4 per cent of their median. This low rate is another way in which the approach to uniformity of achievement by the Baltimore classes is seen from this table. In the other systems the difference between the highest and the lowest score is 1,039, which is 40 per cent of their median, showing a variability greater than the Baltimore classes by nearly 34 per cent.

For the purpose of ascertaining to what extent rapidity entered into the scores, the following tables are given, com-

paring Tables I*a*, all problems counted, and I*b*, six problems counted, in reasoning; also II*a*, all problems counted, and II*b*, six problems counted, in fundamentals.

TABLE I*c*.

Showing rapidity by the higher scores made by the Baltimore classes in REASONING when all problems are counted, and by the gain in excess of scores over excess when first six problems are counted, as compared with the corresponding scores made by the other systems.

	Baltimore.	Other systems.	Excess.	Gain in excess.
Lowest score, all problems (I*a*)....	608.5	356	252.5	
six problems (I*b*)....	487.6	342	145.6	
	120.9	14	=	106.9
Highest score, all problems (I*a*)....	1017.1	914	103.1	
six problems (I*b*)....	603.8	661	— 57.2	
	413.3	253	=	160.3
Median score, all problems (I*a*).....	804.8	551	253.8	
six problems (I*b*).....	567.3	483	84.3	
	237.5	68	=	169.5

TABLE II*c*.

Showing rapidity by the higher scores made by the Baltimore classes in FUNDAMENTALS when all problems are counted, and by the gain in excess of scores over excess when first six problems are counted, as compared with the corresponding scores made by other systems.

	Baltimore.	Other systems.	Excess.	Gain in excess.
Lowest score, all problems (II*a*)....	3445	1841	1604	
six problems (II*b*)....	2718	1776	942	
	727	65	=	662
Highest score, all problems (II*a*)....	6544.1	4099	2445.1	
six problems (II*b*)....	2897.4	2815	82.4	
	3646.7	1284	=	2362.7
Median score, all problems (II*a*)....	4566.7	3111	1455.7	
six problems (II*b*)....	2813.4	2578	235.4	
	1753.3	533	=	1220.3

To explain more definitely, in the first table above, I*c*, taking the median as the type for all, it will be noticed that the excess of the Baltimore median in Table I*a* over Table I*b* is 237.5, showing that this median class made this score after the first six problems. The difference between the median for the other systems in I*a* and that in I*b* is 68, showing that this system achieved a score of only 68 beyond the first six problems. The difference between these two excesses is 169.5, showing the gain in excess made by the Baltimore median when all problems are counted over the excess when six problems are counted. The other classes given show a similar gain beyond the six problems. The second table, II*c*, shows a still greater gain made by the Baltimore classes beyond the first six problems in fundamentals. Since the problems attempted by the other systems are correspondingly fewer in number than the number attempted by the Baltimore classes, as shown by comparing Tables X and XI, achievements of individual pupils, with the corresponding tables in *Arithmetical Abilities*, and since the loss by the greater per cent of mistakes made by the other systems is but a small fractional part of the gains shown above (compare Tables VIII and IX with VIII and IX in *Arithmetical Abilities*, these gains can be accounted for only by the fact that this greater score was achieved within the time limit as the result of greater rapidity in doing the work.

At this point it would be well to notice in a brief way to what extent this gain in speed affected accuracy in computation. The figures given for Tables I*b* and II*b*, covering six problems in each test, show in each instance except one that the Baltimore classes made correspondingly higher scores than the other systems. This would indicate, although the time factor is not so determinative, that the Baltimore pupils were able to accomplish in the time a greater number of steps even in the first six problems than the corresponding scores in other systems. In no case is the median or the composite score for

Baltimore lower than the median score of the other systems. The percentage of error, when all problems are counted, has been worked out and will be definitely presented in Tables VIII and IX. It was thought well to give a graphical illustration of these mistakes on Figures 1 and 2, so that they might be compared with the achievements. It will be noticed that the lines showing the per cents of mistakes for the Baltimore classes fall below the lines indicating the mistakes of the other systems.

A result similar to the foregoing is presented in Figure 3, which graphically illustrates Tables I*b* and II*b*. It is drawn similar to Figures 1 and 2, and shows the scores made in fundamentals and in reasoning, the first six problems only being counted. The upper portion of the figure illustrates the scores in fundamentals. The space between the lines marking the tops of the columns for the several classes and the top line showing the highest possible score indicates approximately the amount of error, because the number of pupils who did not attempt the six problems is so small as to be almost negligible. A comparison between the two spaces representing mistakes shows that the Baltimore classes maintained not only their speed, which resulted in the greater accomplishment, but a somewhat greater per cent of accuracy, even in the six problems. The lower portion of the figure shows a similar condition with reference to the scores in reasoning.

The above comparisons definitely fix the fact that the pupils in the nineteen Baltimore classes have good ability in the work done, greater speed in doing it, and at the same time they maintain a higher per cent of accuracy.

The foregoing completes the comparison of our scores with those of the other systems, and gives the viewpoint for further study. At this point this preliminary report may be fittingly closed. The achievements of the classes as classes, of the individual pupils, the time cost, grading, supervision, and

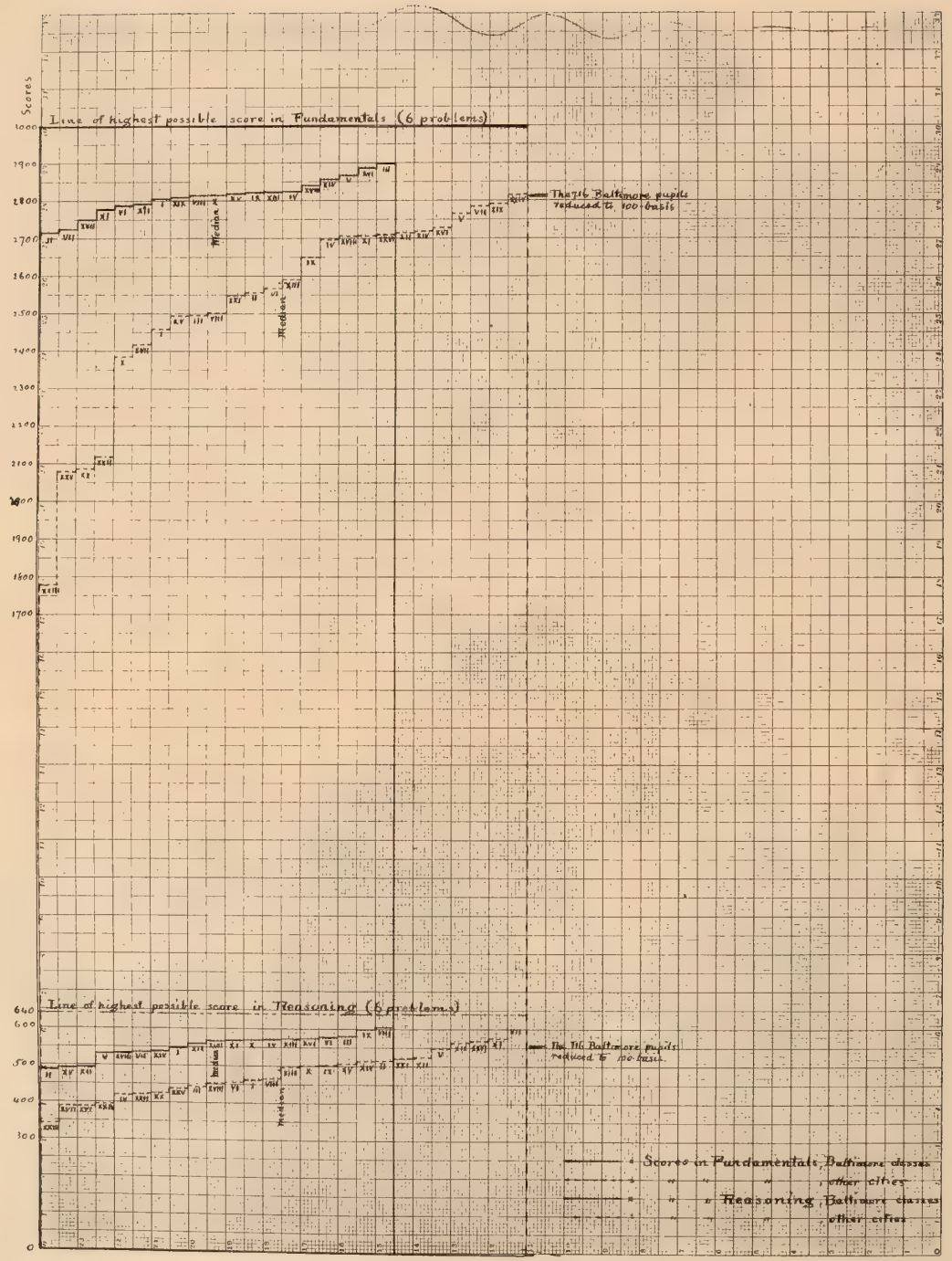
Scores
Line of highest possible score in Fundamentals (6 problems)
The 716 Baltimore pupils reduced to 100 basis
Median
Median
Line of highest possible score in Reasoning (6 problems)
The 716 Baltimore pupils reduced to 100 basis
Median
Median
Scores in Fundamentals, Baltimore classes
" " " other cities
" " Reasoning, Baltimore classes
" " " other cities

FIG. 3. Graphical illustration of Table I*b*, showing measurements of achievement by the scores made in Reasoning by the nineteen Baltimore classes (6A pupils) and by pupils of same grade in twenty-six systems of other cities; also of Table II*b*, showing similar measurements by the scores made in Fundamentals. *Only the first six problems* counted.

other problems within our system itself will be presented and discussed in a later report. However, the remaining tables, III to XI, which have been compiled directly from the pupils' papers and by means of which the study of achievements within our own system will be made, are attached to this report for such observation and comparison as may be desired.

ACHIEVEMENTS OF CLASSES AS CLASSES.

MEASURED BY SCORES MADE.

TABLE III.

Scores of the nineteen classes in REASONING with deviations from the median. Scores from all problems.

Median=804.8.

Classes.	Scores made.	Deviations from the median.	Deviations in per cent of the median.
II	608.5	—196.3	24.4
V	625	—179.8	22.3
XV	647.7	—157.1	19.5
XII	702.3	—102.5	12.7
XIV	728.9	— 75.9	9.4
XVII	730.8	— 74.0	9.2
XVI	744.7	— 60.1	7.5
I	765	— 39.8	4.9
VII	772	— 32.8	4.1
*	803.2		
XVIII	804.8	0	0
X	805.6	+ .8	.1
VIII	821.2	+ 16.4	2.0
III	826.5	+ 21.7	2.7
IV	866.7	+ 61.9	7.7
VI	907.4	+102.6	12.7
XIX	913.6	+108.8	13.5
IX	959.4	+154.6	19.2
XI	967.4	+162.6	20.2
XIII	1,017.1	+212.3	26.4

TABLE IV.

Scores of the nineteen classes in FUNDAMENTALS with deviations from the median. Scores from all problems.

Median=4,566.7.

Classes.	Scores made.	Deviations from the median.	Deviations in per cent of the median.
VII	3,445	—1,121.7	24.6
II	3,514	—1,052.7	23.1
V	3,841.3	— 725.4	15.9
XVII	3,860.4	— 706.3	15.5
VIII	4,079.4	— 487.3	10.7
VI	4,081.9	— 484.8	10.6
XV	4,187.5	— 379.2	8.3
X	4,191.8	— 374.9	8.2
I	4,460	— 106.7	2.3
XVI	4,566.7	0	0
*	4,610.5		
XI	4,658.9	+ 92.2	2.0
XIV	4,660.6	+ 93.9	2.1
IX	4,731.5	+ 164.8	3.6
XIII	4,742.9	+ 176.2	3.9
XIX	4,819.4	+ 252.7	5.5
IV	5,296.9	+ 730.2	16.0
XVIII	5,709.2	+1,142.5	25.0
III	6,252.6	+1,685.9	36.9
XII	6,544.1	+1,977.4	43.3

* The 716 pupils reduced to the basis of 100

TABLE V.

SCORES OF THE NINETEEN CLASSES IN EACH OF THE FUNDAMENTAL OPERATIONS.

Addition.		Subtraction.		Multiplication.		Division.	
Class.	Scores on basis of 100 pupils.	Class.	Scores 100—Basis.	Class.	Scores on basis of 100 pupils.	Class.	Scores 100—Basis.
VII	1,225	II	385	II	1,200	II	603
II	1,326	VII	387.5	VII	1,217.5	VII	615
V	1,329.4	XVII	421	XVII	1,278.9	XVII	694.7
VIII	1,448.7	VI	446.1	V	1,332.4	V	726.5
XVII	1,465.8	V	453	VI	1,415.4	VI	738.4
XV	1,480	VIII	453.8	VIII	1,435.9	VIII	741
VI	1,482	X	467.5	XV	1,440	XV	790
X	1,489.2	XV	477.5	X	1,440.5	X	794.6
I	1,587.5	XI	494.9	I	1,527.5	XI	835.9
Median XIV	1,615.8	I	500	XVI	1,552.8	I	845
XIX	1,627.7	IX	508.5	XIII	1,592.9	XVI	855.6
*	1,643.9						
XVI	1,647.2	XVI	511.1	IX	1,594.3	XIV	881.6
XI	1,694.8	XIV	536.9	XIV	1,626.3	XIII	890.5
XIII	1,714.2	XIII	545.3	XI	1,633.3	IX	891.5
IX	1,737.2	XIX	563.9	XIX	1,677.8	XIX	950
IV	1,894.1	IV	582.3	IV	1,808.8	IV	1,011.7
XVIII	2,020.9	XVIII	653.5	XVIII	1,948.8	XVIII	1,086
XII	2,211.8	III	718.4	III	2,136.8	III	1,155.3
III	2,242.1	XII	738.2	XII	2,291.2	XII	1,302.9

*The 716 pupils reduced to the basis of 100.

TABLE VI.

Scores for the nineteen classes in REASONING with deviations from the median. First six problems counted.

Median=567.3.

Classes in order of achievement.	Scores on basis of 100.	Deviations from the median.	Deviations in per cent of median.
II	487.6	—79.7	—13.9
XV	494	—73.3	—12.9
XII	495.8	—71.5	—12.6
V	531.2	—36.1	— 6.3
XVIII	533.7	—33.6	— 5.9
VII	536.2	—31.1	— 5.5
XIV	537.6	—29.7	— 5.2
I	548.3	—19.0	— 3.3
*	554.0		
XIX	559.2	— 8.1	— 1.4
XVII	567.3	0	0
XI	569.2	+ 1.9	+ .3
X	571.6	+ 4.3	+ .8
IV	572.	+ 4.7	+ .8
XIII	574.7	+ 7.4	+ 1.3
XVI	576.1	+ 8.8	+ 1.6
VI	579.2	+11.9	+ 2.1
III	582.6	+15.3	+ 2.7
IX	600.	+32.7	+ 5.8
VIII	603.8	+36.5	+ 6.4

TABLE VII.

Scores of the nineteen classes in FUNDAMENTALS with deviations from the median. First six problems counted.

Median=2.813.4.

Classes in order of achievement.	Scores on basis of 100.	Deviations from the median.	Deviations in per cent of median.
II	2,718	—95.4	—3.4
VII	2,722.5	—90.9	—3.2
XVII	2,750	—63.4	—2.3
XI	2,776.7	—36.7	—1.3
VI	2,787.1	—26.3	— .9
XII	2,791	—22.4	— .8
I	2,805	— 8.4	— .3
XIX	2,810.9	— 2.5	— .1
*	2,812.4		
VIII	2,812.7	— .7	— .0+
X	2,813.4	0	0
XV	2,820	+ 6.6	+ .2
IX	2,822.7	+ 9.3	+ .3
XIII	2,825.9	+12.5	+ .4
IV	2,826.4	+13.0	+ .5
XVIII	2,841.7	+28.3	+1.0
XIV	2,857.7	+44.3	+1.6
V	2,867.5	+54.1	+1.9
XVI	2,888.7	+75.3	+2.7
III	2,897.4	+84.0	+3.0

*The 716 pupils reduced to the basis of 100

TABLE VIII.

MISTAKES IN REASONING.

Classes in order of per cent of mistakes.	Per cent incorrect.	Number of problems incorrect.	Number of problems attempted.
XVIII	35.1	351.1	1,000.
XV	32.6	255.	782.5
II	31.6	238.	753.
XII	31.1	270.	867.6
XIX	27.7	272.2	980.5
IV	26.6	252.9	950.
XIII	25.2	264.2	1,047.6
XI	24.3	241.	992.3
*	21.6		
XIV	19.8	155.2	781.5
I	19.5	155.	795.
IX	19.1	185.7	968.5
VI	16.5	143.6	882.
VII	16.4	130.	792.5
XVII	16.	123.7	771.
V	12.3	79.4	644.1
III	12.1	97.3	802.6
XVI	11.9	88.8	744.4
X	11.7	91.9	783.7
VIII	9.7	76.9	787.1

TABLE IX.

MISTAKES IN ADDITION.

Classes in order of per cent of mistakes.	Per cent incorrect.	Number of steps incorrect.	Number of steps attempted.
XIX	9.1	163.9	1,791.6
V	8.1	117.6	1,447.
VI	8.1	130.8	1,612.8
I	7.2	122.5	1,710.
XI	7.	128.2	1,823.
IX	6.9	128.5	1,865.7
II	6.8	97.	1,423.
XII	6.8	161.7	2,373.5
XVIII	6.1	132.5	2,153.4
XVII	6.1	94.7	1,560.5
XV	5.9	92.5	1,572.5
*	5.9		
VII	5.8	75.	1,300.
X	5.6	89.1	1,578.3
IV	5.5	111.8	2,005.9
XIV	4.6	78.9	1,694.7
XIII	4.1	73.8	1,788.
XVI	3.9	66.6	1,713.8
VIII	3.1	46.1	1,494.8
III	2.9	65.8	2,307.9

*The 716 pupils reduced to the basis of 100.

CITY OF BALTIMORE, DEPARTMENT OF CHARITIES AND CORRECTION

12TH ANNUAL REPORT, SUB-DEPARTMENT OF

SUPERVISORS OF CITY CHARITIES

TO THE MAYOR AND CITY COUNCIL
OF BALTIMORE

FOR FISCAL YEAR ENDING DECEMBER 31, 1911

MEYER & THALHEIMER
CITY PRINTERS

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SUPERVISORS OF CITY CHARITIES

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JAMES M. AMBLER,

JOHN BLACK,

CARY B. GAMBLE, JR., M. D.,

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Bay View Committee:

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Cary B. Gamble, M. D.,
J. Whitridge Williams, M. D.,
Mrs. Daniel Miller.

Hospital and Dispensary Committee:

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The offices of the Supervisors are on the second floor of the Court House, Room 241.

Hours: On week-days, 9 A. M. to 3 P. M.; on Saturdays, to 12 M.

REPORT

BALTIMORE, MD., December 31, 1911.

To the Honorable Mayor and City Council:

GENTLEMEN—Under the City Charter, the Supervisors of City Charities are entrusted with the care of the following classes of dependents of the City of Baltimore:

The indigent aged and infirm.
The indigent sick.
The indigent insane.
Dependent children.
The temporary care of homeless men.
The transportation of the non-resident poor to their homes.

To carry out this work the Supervisors maintain institutions at Bay View, where about 1,700 inmates are provided for, and conduct three city dispensaries for the care of the sick. They, moreover, contract on a per capita basis with numerous private and State institutions for the care of the sick, of the insane, of homeless men, and of dependent children. They also secure and supervise free private homes for dependent children. The following outline of the work of this Department for the year 1911 will give some idea of the several activities of the Supervisors.

At Bay View the city is just beginning to reap the benefit of large expenditures for new improvements which have been made there in the past few years. In August the new hospital, known as "Ward A Building," was finally completed and occupied by patients. As explained more fully in a previous report, this building is the first unit of the city hospital for the care of chronic cases which the various private hospitals in the city refuse to provide for. It is so planned and placed that additional units may be added as the growing needs of the city require. It was expected that this building would be completed and ready for occupancy in April, but work progressed so slowly and unsatisfactorily that the Inspector of Buildings was finally compelled to take the work out of the hands of the contractor and to have the building completed by his own department. Notwithstanding these difficulties, the building has been satisfactorily completed and we feel that in construction and equipment it is a model hospital for the purposes for which it is intended and is a credit to the city. It has been highly commended by hospital experts from all

over the country, not only because it so well fulfills the purpose for which it was built, but on account of the low cost of construction per bed attained in a fireproof building of this type. Accommodations are provided here for about 160 inmates. The removal to this new building of the chronic hospital cases from the wards in the east and west wings of the old main building has given additional room in the latter building for the care of the aged and infirm, who have been crowded in the tunnel and basement here, and it is now proposed to use the old building exclusively for infirmary or almshouse cases. It is not to be supposed, however, that this overcrowding has yet been met, but it will be pointed out later how the construction of the new dining hall building, provided for in the budget for 1912, will further assist in relieving the overcrowded conditions in the old building.

The new power plant has not yet been put into complete operation. The power house was completed in October and the machinery has been installed. The conduits for the steam pipes and the water pipes have been finished, as well as the water tower. The plant has not yet been turned over to and accepted by the city, although two of the boilers are already being used as an auxiliary to the old plant. It is hoped that a few changes in the plant, which will have to be made before it is finally accepted by the city, will be soon completed and that early in the new year the institution will be entirely supplied by power from its new plant. In addition to supplying power to the institutions conducted by this Department at Bay View, heat and light will also be furnished to the Sydenham Hospital, under the control of the Health Department. The total contract price is about $148,000.

The Board of Estimates has very wisely provided $75,000 in the appropriations for the year 1912 for a new building with dining rooms, kitchen and bakery, which was asked for by the Supervisors. It is proposed to construct a two-story-and-basement building, partly on the site of the old power house, with dining room accommodations for about 1,100 inmates. It is hoped that some of the foundations and walls of the old power house may be made use of, thus reducing the cost of the new structure. Parker, Thomas & Rice have been selected by the Architectural Commission to prepare plans for this building. Considerable additional dormitory space will be indirectly provided by the construction of this building. The inmates of the infirmary and almshouse now take their meals in various rooms scattered throughout the old main building. As soon as the use of these rooms for dining purposes is dispensed with, they can be

turned into comfortable sleeping quarters for those inmates who are crowded into unsanitary quarters in the tunnel and basement, thus considerably increasing our present dormitory space.

During the summer, new, wider and well-screened porches were placed on the entire south front of the Tuberculosis Hospital. These will provide accommodations for about 35 additional patients, bringing up the total capacity of this hospital to almost 200. The class of tuberculosis patients for which provision is made at Bay View is largely composed of those in an advanced stage of the disease. Strong pressure is being exerted upon the city to provide greatly increased accommodations for patients of this class, and within a short time the city will be forced to face this problem. Except in the matter of better separation of the whites and blacks, the care provided for these patients at Bay View is satisfactory, while the per capita cost of maintenance of about $185 a year is surprisingly low, averaging about one-half the cost in similar institutions elsewhere. Better separation of the whites and blacks can only be secured by the erection of another building.

Comfortable, well-screened, two-story sleeping porches were added to the old manor house now used as a home for the nurses of the Tuberculosis Hospital. These porches harmonize with those of the Tuberculosis Hospital nearby, and add greatly to the appearance of both buildings. The accommodations for the tuberculosis nurses has thus been doubled at a very low figure. As many of these nurses have at one time suffered from the disease, they are only too glad of the opportunity to sleep out of doors.

The efficiency of the laundry has been greatly increased during the year by the installation of a large, new mangle. The Board of Estimates has made provision in the appropriations for 1912 for a new and modern metal drier, which will still further increase its efficiency.

The overcrowded condition of the two buildings at Bay View used exclusively for the care of the insane, makes it increasingly difficult to properly handle this class of patients, and were no partial relief in sight through the opening of the new buildings at the several state institutions in the near future, to which some of these patients will be transferred, the situation would be critical. We have now housed at Bay View 479 insane patients in two buildings, which were constructed to accommodate 360. During the latter part of the year 1912, it is hoped that about 200 insane may be taken from Bay View to Springfield, Spring Grove and the new State Hospital for the

Negro Insane. Attention has been repeatedly called to the condition of the building for the female insane, in which 302 inmates are now housed. Several years ago it was condemned by the Inspector of Buildings as unsafe, and temporary supports were placed throughout the building, which have rendered it, for the time being, habitable. Frequent inspections of this building are made by the Inspector of Buildings, who reports no recent changes of importance, but we do not believe that the city will be justified in making use of it for more than a very few years longer. It has been felt by the Supervisors, in view of the repeated affirmations by the state legislature, that "state care" of the indigent insane would be provided for before the year 1912, that it would be inadvisable for the city to expend a large sum of money for a new building, necessarily unsuitable for other purposes than the care of the insane, which would soon become useless. For this reason every effort has been made to make use of the present buildings until the state carries out its pledge which, so far, it has failed to do.

Extensive renovation of the main building or almshouse cannot be delayed much longer. This building was erected fifty years ago and very little has been done to it since it was first built. When it is recalled that this building is about 700 feet in length by 60 feet in depth and four stories in height, the extent of such an undertaking can be appreciated. The building must be refloored throughout and an entirely new plumbing and ventilating system installed. While the present building is not fireproof, additional protection against fire can be afforded by the installation of iron stairways and the use of some sort of fireproof flooring, at least along the corridor floors. With good sanitary flooring throughout, the disagreeable institutional odor, due largely to the absorption of odors by the present decayed flooring, can be done away with, and the labor to keep the building clean enormously decreased. The extent of new flooring required will be appreciated when it is stated that the total floor surface is more than equivalent to the surface of a road twenty-five feet in width and a mile in length. Provision to begin the renovation of this building should be made in the budget for 1913; one portion after another being successively taken up, the whole to be completed in about three years. Owing to the demand for space, only small sections can be thrown out of use at one time.

Provision has been made in the appropriations for the coming year for the construction of a siding from the Pennsylvania Railroad tracks near Bay View Junction to the new power house for the purpose of carrying coal and other institutional supplies. It has not

yet been certainly determined whether this siding will run directly to the power house from the railway or whether a short railway siding connected with the power house by an aeriel tramway will be constructed. This matter has been placed in the hands of the City Engineer.

Attention is again called to the necessity of providing new farm buildings for the institution. An appropriation to start this work was asked for by the Supervisors in their budget for 1912. The Board of Estimates felt, however, that the $85,500, which was generously granted for other new improvements at the institution, was all that the city could afford to spend at Bay View for the coming year. The present farm buildings are located between the old main building and the new hospital, being situated only a few yards from the latter building. They are, for the most part, dilapidated and unhygienic, and their situation entirely unsuitable. A new and larger cow barn is especially needed. We have already a herd of about fifty cows, which more than taxes the capacity of the present barn, although it does not supply sufficient milk for the needs of the institution. There is an ideal spot at Bay View, to the northeast of the new power house, for the location of the farm buildings.

The reorganization of the medical work of the institution, which went into effect January 1, 1911, has proven most satisfactory. There have been no changes in the personnel of the Medical Board, which is composed of the five physicians-in-chief to the several medical departments of the institution. An entirely new resident medical staff was installed on July 1 of this year, and the new method of selection of the resident medical staff, based upon competitive examinations, has resulted in the institution obtaining the services of high grade and efficient men representing the various schools.

The training school for nurses was started in October of this year. Much is hoped from this training school in attracting high grade girls. Lectures and recitations are held by the visiting and resident physicians. As in every other department at Bay View, the present quarters for the nurses of the general hospital are overcrowded and it has become increasingly difficult to provide for a nursing force sufficient to take care of the needs of the institution. Additional quarters for these nurses will have to be provided within a few years.

A systematic medical survey of all inmates of the institution has been made during the autumn to determine the character of labor best suited to the individual ability of each.

For the care and treatment of the various city charges outside of Bay View, contracts on a per capita basis have been entered

into with 29 institutions. Under the City Charter, lump appropriations to the institutions dealing with dependent children or with the insane, or with the sick in hospitals or dispensaries, or with homeless men, is forbidden, and such institutions as the city contracts with for the care of these classes are paid for on a per capita basis for work actually done. The Supervisors are required to exercise a rigid supervision over these institutions and to determine that each case cared for is deserving of city aid. For this purpose they employ a small force of trained visitors in connection with the city office, who are experts in this kind of work.

The dependent children, who have become city charges through commitment by the courts or otherwise, are provided for by the Supervisors in one of two ways. They are either placed in free private homes or are placed in institutions. In each case the religious antecedants of the child are considered. In all cases such children remain in charge of and under the authority of this Department, and frequent visits by trained agents are made to the private homes and to the institutions to determine that proper care and attention are being bestowed. This Department believes where the home has been broken up, that the normal child is being given the best chance in a suitable private home, preferably in the country, and so far no difficulty has been met in obtaining a large number of good private homes. This policy has resulted in not only giving the child greater advantages, but has resulted in a corresponding saving to the tax payers of a large amount, which was formerly spent in the maintenance of children in institutions, so that, notwithstanding the increase in the population of the city, there is a steady annual decrease in the amount spent for the institutional care of children.

During the past year the Supervisors were requested to assume the charge of 198 children. Through careful handling of these cases, they were able to reduce the number of these children to fifty-one, who actually became city charges; private charity providing for the remainder without charge. In forty-nine instances relatives having suitable homes were induced to take charge of children, and by this means many families were held together, which would otherwise have been disrupted. Suitable free private homes, other than those with relatives, were found for 92 children. Including those children who have come under our control in previous years, there are now 606 children in all who are wards of the city and under supervision. Of this number, 297 are in private homes, without cost to the city, except the trivial cost which visiting and supervision by the agents of this Department entails. Two thousand two hundred and sixty-one

visits were made by the Supervisors in the interest of these 606 children.

During the past year no changes (with one exception) were made in the hospitals or dispensaries with which the city contracts for the care of the sick poor, nor was there a change in the number of beds contracted for. The one exception referred to was in the case of the dispensary of the Woman's Medical College. This institution went out of existence at the end of 1910 and the Supervisors found it necessary to establish a city medical agency in this section of the city for the care of a large negro population, which would otherwise have been unprovided for.

The question of complete "state care" of the insane, which has been previously referred to, is one of vital concern to the city. Although obligated to the care of all the indigent insane in the state by 1912, the Legislature of 1910 failed to make sufficient appropriation to make this effective. As was pointed out at the time, the state loan of $600,000 authorized by the Legislature of 1910, for providing additional accommodation for the insane, is entirely inadequate. A recent careful study by this Department shows that when all this loan is spent, allowing for the natural annual increase in the number of the insane, there will be at least 1,000 indigent insane in the state by the end of 1913, who will be totally unprovided for in state institutions, unless the Legislature of 1912 provides for them. Every effort should be made on the part of the city authorities to induce the legislature about to assemble to authorize another loan of at least $800,000 for this purpose. Unless this is done, within two years the city will be in about the same position in regard to its indigent insane as it is at the present time, and will be confronted with a problem of providing large sums for new buildings at Bay View. There is no one problem concerning the welfare of the city, both from a humane and a financial standpoint, which demands intelligent action on the part of the legislature more than that of providing effective state care for the insane.

At the request of the Mayor, during the year 1911, the Supervisors recommended to him twelve families among the deserving poor, which under the terms of the will of the late Orville Horwitz, are to be designated by him to enjoy the interest on a fund of $20,000, to be annually distributed among twelve families most deserving of pecuniary assistance. At the request of the Mayor, rules governing the selection of these families have been prepared by this department, and may be obtained on application.

As has been done for several years past, the Supervisors have continued to contract with the Friendly Inn for the care of homeless men.

This Department, under the Charter, is entrusted with the expenditure of a fund to provide transportation of certain non-resident poor and destitute to their homes, when these are situated outside of the City of Baltimore; $467.17 was expended during the year for this purpose.

No changes of importance during the year 1911 have been made in the management of our city offices, located in the Court House and in the City Hall Annex. The cost of maintaining these offices has been $10.221.85 for the past year. This sum was largely expended for the salaries and travelling expenses of our trained agents, whose duty it is to make a thorough investigation of the social status of all persons applying for city aid, to visit and inspect the numerous private institutions with which the Supervisors contract, and to watch over the welfare of the children placed in free private homes scattered throughout the State. The entire amount spent for the running of our city offices was more than returned to the city in the one item of money collected through this office from the "reimbursing insane." The amount received from this source and turned over to the Comptroller will be $17,713.65 for the year 1911. We should like to emphasize the fact that no hardship is inflicted upon the poor in connection with the collection of this fund. Only in the case of those patients whose families are well able to reimburse the city for a part or all of the cost of maintenance in institutions for the insane, are relatives called upon to help defray the cost of their care.

The Supervisors expended during the year 1911 $576,322.31, as compared with $530,210.95 in 1910. A more detailed report of the work at Bay View, and the other activities of the Department, will follow this report. The following table showed the amounts appropriated by the Mayor and City Council to be spent under the direction of this board,* as well as the unexpended balance remaining in the City Treasury:

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*This $576,322.31 expended during the year includes an item of $125,000 carried in the budget for 1911 to the account of the Inspector of Buildings for the completion of the Bay View power house, and an item of $5,000 appropriated in the same way for the laundry and the nurses' home at Bay View.

1911.	Appropriations.	Expended.	Unexpended.
Bay View, salaries	$53,590 00	$51,152 23	$2,437 77
Bay View, expenses	135,359 00	135,359 00	.....
Bay View, improvements: Furnishing new hospital, improving grounds, etc.	3,500 00	3,500 00	.....
For additional land for institutional work and Tuberculosis Hospital	16,500 00	16,500 00	.....
City office, salaries	8,860 00	8,729 14	130 86
City office, expenses	1,500 00	1,492 71	7 29
Temporary care of homeless men	1,000 00	1,000 00	.....
Transportation	1,000 00	467 17	907 00
Hospitals	70,875 00	69,968 00	489 97
Insane	146,500 00	130,512 15	15,987 85
Destitute and neglected children	27,000 00	19,131 88	7,868 12
Totals	$474,684 00	$446,322 31	$28,361 69

Amount expended			$446,322 31
Amounts paid to city:			
Bay View, sale of old material	$134 68		
Bay View, board of inmates	494 25		
		$628 93	
Reimbursements through city offices:			
For care of insane	$17,713 65		
For care of children	56 26		
Hospital account	46 00		
		17,815 91	
			18,444 84
Net cost of all departments			$427,877 47

J. Hall Pleasants, M. D., *President*,
Mrs. Daniel Miller,
James M. Ambler,
John Black,
Cary B. Gamble, Jr., M. D.,
Daniel Greenbaum,
Elisha H. Perkins,
James R. Wheeler,
J. Whitridge Williams, M. D.

REPORT OF BAY VIEW ASYLUM

BAY VIEW, December 31, 1911.

To the Supervisors of City Charities:

GENTLEMEN—I respectfully submit for your consideration my annual report of this institution for the fiscal year ending December 31, 1911:

POPULATION.

The total number of inmates, including all departments of the institution, January 1, 1911, was 1,596 (763 white males, 408 white females, 205 colored males and 220 colored females). The admissions during the year were 1,955, and four were born in the institution, making a total of 1,959 (1,168 white males, 321 white females, 298 colored males and 172 colored females). Two hundred and twenty-four persons were admitted more than once, and 179 who were in the institution January 1, 1911, were discharged during the year and re-admitted. The actual number of persons cared for was 3,110.

The daily average number of inmates for the year was 1,530, as compared with 1,494 for 1910, an increase of 36. This is the highest daily average in the history of the institution, and shows that we may look for a steady and constant increase.

The highest number present at one time was 1,707, on the 19th of February, and the lowest 1,411, on the 9th of September.

The number remaining at the close of the day December 31, 1911, was 1,601 (740 white males, 422 white females, 210 colored males and 229 colored females), five more than the same day in 1910.

The total remaining in each department December 31, 1911, as compared with the same date in 1910, was as follows:

		1911.	1910.	*Increase.*	*Decrease.*
Insane		471	443	28	..
General Hospital:					
Ward "A"	118	.....	.....	..	..
Male chronic	15	.....	.....	..	..
Female chronic	15	.....	.....	..	..
		148	198	..	50
Tuberculosis Hospital		159	158	1	..
Infirmary		823	797	26	..
Total		1,601	1,596	55	50
		1,596	.....	50	..
Net increase		5	.....	5	..

There is an increase of 14 white females, 5 colored males, 9 colored females and decrease of 23 white males. All of the departments show an increase, with exception of the general hospital, where there is a large decrease. This is caused by transferring to the infirmary a number of patients formerly carried in the hospital, but who are now in sleeping rooms, treated at the dispensary.

DEATHS.

The deaths for the year show a decrease of 59, as compared with 1910, the total being 553 (white males, 213; white females, 89; colored males, 153, and colored females, 98). A large percentage were cases who were brought to the hospital when past all hope; 254, or 45.93 per cent., died of tuberculosis; 251, or 45.39 per cent. of the total, were colored. The average age of the total who died was 49⅓ years; the average age of whites who died was 53⅓ years; the average age of the colored who died was 44½ years; the average age of those who died of tuberculosis was 39¾ years; the average age of those who died, exclusive of tuberculosis cases, 58¾ years. Three hundred and fifty-four bodies were claimed by friends, 67 by St. Vincent de Paul Society and 132 unclaimed, turned over to the Anatomical Board. There were 93 autopsies.

COMMITMENTS BY POLICE MAGISTRATES.

The total number committed by Police Magistrates during the year was 189 (119 white males, 31 white females, 25 colored males and 14 colored females), two less than in 1910. Sixteen of those committed were for a total of 36 times. The actual number of persons committed was 169. The greater portion of those committed more than once were committed for only two months each time. One of these has been committed fourteen times in the past ten years, the large majority of his commitments being for two months. The law for commitments of persons to Bay View, Sections 868 and 872 of the City Charter, provides that such commitments "shall not be less than one week nor more than two months for the first conviction, and not less than one month nor more than six months for the second conviction, and not less than six months nor more than twelve months for the third or any subsequent conviction." Those persons who are "not able-bodied, but aged, or seriously crippled or infirm," if proper charges for Bay View, should be given the full limit of the law each time committed.

FINANCIAL.

The amount appropriated (including those for improvements) by the city for the support of Bay View for the year 1911, was:

For salaries		$53,590 00
For expenses		135,359 00
Total for maintenance, 1911		$188,949 00
For completion of new power plant	$125,000 00	
For furnishing new hospital	3,500 00	
For additional land and work of Tuberculosis Hospital	16,500 00	
Special from Contingent Fund	3,195.25	
Transferred from Inspector of Buildings appropriation for Bay View	3,767 69	
Total appropriated for new improvements		151,962 94
Unexpended balance for new power plant, brought forward from 1910		18,577 17
Unexpended balance for new hospital, brought forward from 1910		28,864 64
Total available		$388,353 75
Expended for salaries	$51,152 23	
Expended for expenses	134,491 88	
Expended for new power plant	124,443 59	
Expended for new hospital	25,071 13	
Expended for furnishing new hospital	5,339 09	
Expended for land and porches for Tuberculosis Hospital	20,267 69	
Expended for running gas main to new hospital and minor improvements	723 28	
Total expended		361,488 89
Balance unexpended		$26,864 86
Unexpended salaries remaining in hands of city	$2,437 77	
Unexpended balance of appropriation for new power plant caried forward to 1912	19,133 58	
Unexpended balance of appropriation for new hospital carried forward to 1912	3,793 51	
Appropriation for railroad siding carried forward to 1912	1,500 00	
		26,864 86

Four hundred and ninety-four dollars and twenty-five cents ($494.25) received for board of patients, and one hundred and thirty-four dollars and sixty-eight cents ($134.68) for sales of old material was collected and paid to the City Comptroller during the year. Eleven hundred and forty-four dolars and sixty-four cents ($1,144.64) was paid to the city through the Secretary of the Supervisors for board of insane. This latter sum is a proper credit for Bay View, as the cost of maintaining the patients who paid the board is included in the amount of Bay View

expenses. In arriving at the per capita cost of maintenance the amounts above received were deducted from the total cost.

The net per capita cost of maintenance in each department for the year was $120.19 for insane, $186.37 for general hospital, $183.52 for Tuberculosis Hospital and $84.54 for infirmary. The average as to the whole was $120.19.

The per capita cost for feeding in each department for the year was $38.79 for insane, $78.72 for Tuberculosis Hospital, $59.30 for general hospital, $33.27 for infirmary, and the average as to the whole population was $43.28, or 11.86 cents per day for each inmate.

MEDICAL BOARD.

On the 1st of January, 1911, the Supervisors organized a Medical Board, who were made responsible for the medical and surgical management of the city hospitals at Bay View, this board to consist of the superintendent of Bay View, the physician-in-chief, surgeon-in-chief and pathologist of the city hospitals, physician-in-chief of the Tuberculosis Hospital and physician-in-chief of the Detention Hospital for the Insane.

Dr. Thomas R. Boggs was appointed physician-in-chief, Dr. Arthur M. Shipley, surgeon-in-chief of the city hospitals; Dr. Milton C. Winternitz was continued as pathologist; Dr. Gordon Wilson, physician-in-chief of the Tuberculosis Hospital, and Dr. H. D. Purdum, physician-in-chief of the Detention Hospital for the Insane.

The Board recommends to the Supervisors for appointment all consulting physicians and internes, the latter after a competitive examination. The new staff of resident physicians appointed under this arrangement succeeded the old staff on the 16th of June.

Regular monthly and a number of special meetings were held during the year by the Board. Much interest in the work has been manifested, and great activity shown by all the staff.

INSANE.

The Detention Hospital for the Insane has been overcrowded all year. The number of patients remaining at the close of the day December 31, 1911, was 471, as compared with 443 the same date in 1910, an increase of 28. Seventy-eight patients were transferred during the year to other institutions, 47 of them to Springfield and 27 to Spring Grove State Hospital, the balance of the number to private institutions.

The highest number present at one time was 482, on the 22d of December, and the lowest 443, on the 3d of January.

Broom making was started early in the year, and a sufficient quantity has been made to supply the whole institution. A number of mattresses were also made. Some of the male patients worked in the garden, others in grading and various kinds of work about the grounds. A larger amount of work was done in the women's sewing room than in 1910, more than 1,500 articles being made than last year. A number of the women are also given work in the laundry.

Last fall an instructress was employed to teach the women fancy work and plays. This has proved very beneficial.

Dancing and moving pictures are given frequently to entertain them.

It is hoped that the Legislature now in session will make an appropriation sufficiently large to provide for the State care of all insane patients in the State.

TUBERCULOSIS HOSPITAL.

The total number of patients in the Tuberculosis Hospital December 31, 1911, was 159, a decrease of one as compared with 1910.

The daily average for the year was 150, two less than in 1910. Owing to the improvements being made in the summer, the bed capacity was very much reduced for three or four months, otherwise the daily average would have been much greater.

The nursing staff has been improved, and the average number present show an increase over last year, though we are still short in the number required to do the work properly.

Wide-screened porches have been built across the whole front of the building, giving room for 25 more beds, making the estimated capacity 190. The same kind of porch has also been built around the nurses' home, which greatly improves the appearance, and gives more and better accommodation for the nurses.

The per capita cost of maintenance was $183.52, a little lower than last year, caused mainly by not laying in a stock of coal as we did in previous years, the building now being heated from the new power plant.

GENERAL HOSPITAL.

The number of patients remaining in the hospital December 31, 1911, was 148, a decrease of 50 as compared with 1910. This was caused by transferring to the infirmary those patients who could be

treated at the dispensary, the work of which has been considerably increased.

The daily average for the year was 195—six less than last year.

The annual change in resident physicians and internes took place on the 16th of June. These appointments were made after a competitive examination.

The new hospital, known as Ward A, after a long delay was finally opened on the 23d of August with 73 patients. This number has steadily increased. While built to accommodate 153 patients, it is estimated that 180 can be cared for.

A new superintendent of nurses was engaged in October, and a training school started, but owing to lack of sleeping-room accommodations, the number of pupils is not as large as we should have to carry on the work. A separate building should be erected for the nurses as soon as possible, if we are to get satisfactory results.

The report of the Medical Board gives fuller and more detailed work of the hospital department.

The per capita cost of maintenance was $186.37.

The total number of ambulance cases for the year was 229, 30 less than in 1910.

INFIRMARY.

The total number of inmates in the infirmary on the 31st of December was 823—an increase of 26 over the same date in 1910.

The daily average for the year was 716—an increase of 13 as compared with 1910.

A physical examination of the male inmates was made in the fall with the view of giving them work of some kind to occupy their idle moments. They were divided into five classes, as follows:

Class A—Those who are able to do some heavy work for a part of the day, such as firemen, farm hands, laundry, scrubbers, waiters, etc.

Class B—Those who are capable of semi-skilled work, such as watchmen, orderlies, room bosses, etc.

Class C—Cripples who are able to prepare vegetables, do light tailoring, cobble, etc.

Class D—Those who are non-productive and of no use to the institution, but for whom some light work might be devised to occupy their minds and make them happier.

Class E—Helpless cripples who can do absolutely no work.

Forty-four per cent. of those examined were found to be of Class

A, 15½ per cent. Class B, 14½ per cent. Class C, 7½ per cent. Class D, 18½ per cent. Class E.

In summer the percentage of the more able-bodied is very much reduced, as this class of patients generally take their discharge early in the spring.

The greater part of all kinds of work in the institution is done by the inmates, and at times it is difficult to find a sufficient number physically able to do the work required.

The sewers in the women's department made 13,016 garments and articles of various kinds—an increase over last year of 1,000. The tailor shop turned out a number of suits of clothing and overalls. Over 900 pair of shoes were repaired in the shoe shop.

FARM.

Notwithstanding the severe drouth, which was even worse than that of last year, we succeeded in getting a fair yield for some of our products, especially tomatoes. In addition to those used on the table, we put up with our own labor 7,565 cans for winter use. The total milk yield was 29,469 gallons, which is credited to the farm at the low price of eighteen cents per gallon. After a fair allowance for all the other products, we show an estimated profit of $945.04. The expenses have been heavier this year, partially caused by the purchase of two horses, to take the place of two lost by death.

The Board of Estimates refused to grant our application for an appropriation for a modern barn. This is greatly needed. Another effort must be made to get it. The barn we are now using is situated in front of our hospitals, presents an unsightly appearance, and is not sanitary.

IMPROVEMENTS.

The new hospital, after a long delay, was finally completed and opened in August. The new power plant and water tower is not in satisfactory running order; they have been taken out of the hands of the contractor, and will be finished by the city.

About sixteen acres of land which adjoins the Tuberculosis Hospital, making a wedge in our property, has been purchased and the lines straightened out.

Porches have been built across the front of the Tuberculosis Hospital and around the nurses' home, adding very much to the appearance, and giving greater bed capacity.

A gas main has been run to the new hospital, cement walks laid, additional lights put up around the grounds, and other minor improvements made.

GENERAL.

The church services have been held as usual, and all denominations have the opportunity of visiting the inmates and looking after their spiritual welfare. Two services are held monthly in the insane department by laymen of the Protestant Episcopal Church.

Members of the various churches and others have given frequent entertainments, and during the Christmas-tide furnished the inmates with an abundant supply of good things.

I respectfully desire to express to the Board my deep gratitude for their uniform kindness and courtesy to me.

Respectfully submitted,

LAMAR HOLLYDAY,

Superintendent.

BAY VIEW HOSPITAL

Bay View Hospital, December 31, 1911.

The Board of Supervisors of City Charities, Baltimore, Md.:

Gentlemen—Since the last medical report was submitted to you a new system has been put into service in the hospital under your care, and with the permission of the president of your body we beg to submit some observations on the situation, with criticisms and suggestions, in addition to the usual statistical report heretofore presented.

The new service began January 1, 1911, in the old building, and with the small staff of resident officers holding over from the old regime.

The wards were full, and many of the patients were such as could have been treated in the dispensaries had the crowded condition of the almshouse permitted their discharge. With the coming of summer the service was lightened, and in June the new and enlarged staff of house officers permitted a division of the work into medical and surgical services, and a much more thorough study of, and care for, the sick under our charge.

An adequate system of records was begun with the assistance of the clerk, which you have allowed us for this purpose, so that now we have ample card catalogues and records which compare favorably with the best, and make our material available for teaching and investigation.

The inter-relation of the various departments has been extended, and cordial co-operation fostered through the establishment of the Advisory Board, composed of the superintendent and the heads of the various services.

In August, 1911, the active work of the general hospital was transferred to the new hospital building, which greatly increases the comfort of the patients and the efficiency of the work.

All the active service, medical and surgical, for white and black patients, male and female, is concentrated in this building, and a small chronic ward left in the west wing of the old building for such cases as need little active treatment, but are bedridden, or too feeble to be left in the sleeping rooms. These patients are visited daily by the physicians, and have a nurse constantly in attendance.

Many other patients were discharged from the hospital, and referred to the dispensaries for medical and surgical treatment. As will appear in the statistical report, the dispensary service is very large,

and demands a great deal of time from the medical and nursing staff. It is a distinct economy to treat these cases in the dispensary rather than leave them in the wards of the hospital. The dispensary service has been reorganized, and daily hours are devoted to the treatment of all who apply—a proper record has been instituted, showing the number of new, and old cases, seen each day, and the treatment ordered for each.

ANNEX.

The Annex, which under the charge of the medical service is still very far from being a creditable part of the work, though improvements have been made with some discernible effect. The cases in this department are practically of two kinds: (a) such persons as are from physical or mental defects impossible to keep clean; (b) idiots with foul personal habits.

The principal reforms urgently needed here are: (1) More adequate orderly service. (2) A large daily detail from the working force to keep the place clean. (3) Frequent repainting. (4) More adequate bath and toilet facilities. (5) Water-proof covered mattresses. (6) Rigid screening of the windows and doors, to exclude the flies. (7) The idiots require more attention than the sick, and should be removed from the medical service, and put under the care of the hospital for the insane.

LABOR.

The improvement of the care of the sick necessitates not only a proper hospital building, but increased amount of labor. This is a problem which grows more pressing all the time. In the hospital we must rely for all orderly service upon inmates from the almshouse, unpaid or only nominally paid. Of these the able-bodied are nearly all alcoholics, and, therefore, sure to be incapacitated frequently; others are so feeble as to do but litle efficient work. We need able-bodied, paid orderlies for this work.

DIETS.

The diets in the general hospital are not of the standard desirable in the treatment of the sick. There is very little variety obtainable in the way of vegetables or meats, and the supply of milk is not sufficiently plentiful—and no fruit is to be had.

I earnestly request the Board to make an effort to enlarge our facilities in this respect. We have many patients, to whom proper diet is of primary importance.

The diet of the medical and nursing staff could also be improved with great benefit to the work.

The pantry and dining room service needs improvement.

The nurses and doctors should receive a liberal allowance of good milk, in addition to the ordinary diet. The work demanded of these people is confining and attended with unavoidable risks, and it is only right that they should have abundance of wholesome food, well served.

Again, it is unavoidable that some of the large number of persons employed in the institution should have communicable diseases. It is urgently necessary that the dishes and other common utensils be properly sterilized after use, as is now customary in institutions and hotels generally, through the use of steam dishwashers.

NURSING.

The attention of the Board is again respectfully and earnestly called to the inadequate supply of nurses in the general hospital. We have 6 graduate nurses and 15 pupil nurses to take care of 150 to 200 patients, night and day—a number very inadequate and far below the standard of the hospitals in the city at large. Such a condition gravely hampers the treatment of the sick under our charge.

A training school for nurses is essential if we are to get women of a higher class as pupils. The hours are now so long that there is little time or energy left for training after the day's work is done. In our opinion it would greatly improve the character of the nursing department if arrangements were made to give them the use of the available space in the present administration building for a kitchen and dining room and classroom, and have them separated from the other employees.

DENTAL WORK.

We beg to call the attention of the Board to the need for the services of a dental surgeon in the hospitals and almshouse. Much suffering and the loss of useful teeth could be prevented if there were some treatment provided for these cases. It would seem to us that some of the dental schools in the city might be glad to have a dispensary service here for their advanced students in operative work. It would not require a very elaborate outfit, and a room could be fitted up in the almshouse for their use.

VENEREAL DISEASES.

It appears to us highly desirable that the more improved methods of treatment for syphilis should be made available in our hospitals. We have many cases of all stages of this disease and could do much to render them innocuous to the community if we were able to use

Salvarsen freely. This drug is expensive, and we have limited its use to a very few cases. It would probably be an economy in the long run, as it would shorten the necessary duration of hospital treatment for many cases.

Poor persons are unable to have this treatment at the hospitals and dispensaries in the city. In our opinion this is a public health measure of much importance.

LAUNDRY.

The demands of the hospitals make a heavy drain on the limited facilities of the institution. There is a certain amount of washing done in the wards, but this is hard to manage efficiently with the inefficient and untrained help we have for the purpose. It is work which the nurses should not be asked to do, nor have they time for it. We recommend that some definite provision be made for this need.

GENERAL SANITATION.

The most obvious criticism under this head is the unnumbered myriads of flies which pervade the whole institution, crawling over the patients and their dejecta and food alternately. They invade the dining rooms and pantries, as well as the wards and toilets. Some effective measures are urgently demanded to combat the disgraceful nuisance.

(1) Most important in this respect is the proper screening of the breeding places, especially the manure pits, cow stables, pig styes, as well as the receptacles for garbage. The screening of many of the buildings is so inadequate as to be quite useless.

(2) All the most used exits to the building should have double screen doors provided.

Every year there is a large morbidity, and a not inconsiderable mortality from epidemic diarrhoea (acute entero-colitis). I am sure that this could be largely reduced by doing away with the fly nuisance, and by proper cleanliness in the care of dishes and preparation and service of food. A proper supply of sterilized drinking water should be provided for the inmates of the almshouse, such as is now available in the general hospital.

Respectfully submitted,

THOMAS R. BOGGS,
Physician-in-Chief.

ARTHUR M. SHIPLEY,
Surgeon-in-Chief.

CITY DETENTION HOSPITAL

CITY DETENTION HOSPITAL, December 31, 1911.

To the Supervisors of City Charities:

GENTLEMEN—I have the honor of presenting to you the regular annual report of the City Detention Hospital for the Insane, with appended tables.

There have been 274 patients admitted during the year, 63 deaths, 101 discharges, 70 transfers and 4 escapes. We have had no suicides nor homicides during the year. During the months of August and September, 7 cases of typhoid and 11 cases of malaria fever developed. The various possible sources of the typhoid infection were studied and eliminated, and we came to the conclusion that it must have been due to a typhoid carrier. As a prophylactic measure, all patients under 40 years of age were vaccinated and no new cases have developed since.

We have paid special attention this year to the re-education of those patients who are profoundly demented and unable to be employed in the various industrial departments of the institution. With this end in view, a specially trained teacher was employed and a class formed in July. At first these patients were given simple tasks and various exercises which would appeal to a normal child of four years; later the work was made more complicated and eventually rattan-raffia work, weaving, plain sewing and embroidery work were engaged in. The results were so encouraging that I applied it to some of my acute cases, especially those suffering from the stuporous types of katatonia, with most gratifying results; in fact, I believe that the unusually large percentage of recoveries in the katatonic group (Table "F.") has been due to this treatment. The demented patients in most cases became tidy, took more pride in their appearance, slept better at night, and several have been placed in the sewing room and laundry where they have done good work.

In January, a machine for making brooms was procured, and during February, March and April, 1,300 brooms were made—a sufficient number to supply all the departments of the institution for one year. During the months of November and December, 500 more brooms were made. Three men are able to make four dozen brooms per day, but owing to the small demand and our inability to dispose of them in the market on account of legal restrictions, the machines are not used except during a few months in the winter season. The making of these

brooms by the patients has not only been of therapeutic value but a considerable saving to the institution, as we are able to make them at a cost of 11½ cents apiece, while if bought on the market they would cost us from 35 to 40 cents.

Our sewing room has also turned out more articles than usual this year. This was made possible by having one of the nurses remain in the room with the patients most of the time and by using demented patients who had formerly been allowed to sit idly about the ward, after having given them a short course in the re-educational class.

In October we inaugurated a training school for nurses and it has had a most beneficial and stimulating effect on the personnel of the nursing staff. In previous years great difficulty was encountered in keeping the required number of nurses and in maintaining the proper moral and intellectual standard. This year we have not experienced these troublesome factors and I feel that it is due in a measure to the theoretical and practical training that they have been getting.

The advanced methods of record making introduced in the latter part of last year has been continued during this, and on each case admitted a psychic and physical examination has been made and the laboratory findings recorded. These complete histories have been of inestimable value to the 240 medical students who have received their psychiatric training during this year.

As we have to look to the family physician as being the most productive source of educating the people along prophylactic lines, one can only partially appreciate the great value to the public of these clinics on thoroughly studied and carefully selected cases.

While abstracting histories for clinical purposes, we have emphasized at all times the etiological factors producing mental aberration.

While I feel that the State care of the insane is desirable, I recommend that a city detention hospital, with a sufficient capacity to accommodate 100 patients be maintained here to supply clinical material for the medical schools in town and to receive those emergency cases which cannot be sent directly to the more or less inaccessible institutions away from the city.

Before closing this report I wish to thank the Lunacy Commission, the Supervisors of City Charities, our Superintendent and my most worthy assistant, for their kind and willing co-operation during the year.

Respectfully submitted,

H. D. PURDUM,

Physician-in-Chief, City Detention Hospital.

REPORT OF THE PHYSICIAN IN CHARGE OF THE MUNICIPAL TUBERCULOSIS HOSPITAL

BALTIMORE, MD., December 31, 1911.

To the Supervisors of City Charities:

GENTLEMEN—I have the honor to submit herewith the following report of the Municipal Tuberculosis Hospital for the year ending December 31, 1911. During the past year there has been treated in the hospital, for varying periods, a total of 611 patients—a decrease of 43 over the previous year. This decrease was due to the rebuilding of the front porches of the hospital and thereby rendering us unable to run at full capacity for many months. Of these 611 patients, 248 were discharged, 206 died, and there were remaining 157 in the hospital on December 31.

DEATHS.

During the past year our deaths decreased twelve from the year previous, our mortality increased to 33.7 per cent. as compared with a percentage of 33.3 for 1910 and 34.5 for 1909. Forty-two of these deaths were in patients who were in the hospital less than ten days, and an additional fifty-four deaths occurred amongst patients who were in the hospital less than one month; so that, practically, 50 per cent. of the deaths occurred amongst patients who were brought to the hospital in a moribund condition. The average age of those dying was 36 years.

DISCHARGES.

The number discharged in 1911 was 248 as compared with 276 in 1910, and the condition of those discharged this year, as compared with last year, is as follows: "Apparently cured," 3—a decrease of 12; "arrested," 8—(no change); improved, 108—a decrease of 11; unimproved, 129—a decrease of 5. These results compare most favorably with those reported for 1910 and 1909, when one considers that there were 33 less incipient and moderately advanced and 25 more far advanced cases than there were in 1910. Amongst those discharged 98 gained an average of 10 pounds, with a maximum gain in one individual of 47 pounds; while 59 lost an average of six pounds, and there were 90 whose weight did not change, or else of whom there was not record of weights, due to the fact of their being "bed patients," and making a short stay in the hospital. Twenty-five of those dis-

charged were in the hospital less than ten days, and the average stay of all patients discharged was 95 days. This is a decrease of 20 in those staying less than 10 days and an increase average stay of 7 days, which would indicate that fewer were dissatisfied with their treatment.

IN HOSPITAL.

Of the 157 patients in the hospital at the end of the year none were "apparently cured," none "arrested," 80 improved, and 77 unimproved. Of these 157 patients, 82 had gained an average of 11 pounds, 35 lost an average of eight pounds, and there were 40 of whom there is no record as to change of weight.

During the past year the average number of patients in the hospital throughout the year was 150 as compared with 142 during 1909, and 152 in 1910. The average number of "bed patients" exceeded 60 in number, as compared with 40 in number during 1909 and 50 in 1910.

The cost of running the hospital, including all expenses, save interest on the investment, was during 1910 a trifle over fifty cents per patient per day, as compared with a trifle over forty-nine cents per patient per day for 1909, and a little over fifty-three cents in 1910. Our low cost is, of course, due to the running of the hospital in conjunction with a large general hospital, almshouse and hospital for the insane, thereby decreasing our administration cost to a minimum, and saving by the use of unpaid labor, where possible, from the almshouse. As the cost in hospitals devoted to the treatment of patients suffering with advanced tuberculosis of the lungs is well above a dollar per patient per day, as an average, it can be well seen that our cost is remarkably low, and if, in the future, the work is to increase and improve as it should, I am afraid our cost will increase greatly.

The completion of the new screened deep porches on the front of the hospital has increased our capacity from 165 to 200 beds, besides remarkably improving our facilities for the treatment and care of the patients.

The breadth of the work in the Municipal Tuberculosis Hospital can be well shown by the following diseases, which were amongst the complications of the tuberculosis for which the patient was treated at the hospital: The valvular lesions of the left side of the heart, myocarditis, chronic nephritis, uraemia, asthma, myxodema, aneurism of the aorta, malaria, syphilis, epilepsy, meningitis, Graves' disease, cancer of tongue, Hepatic abscess, three obstetrical cases, Raynaud's disease, pernicious anaemia, and diabetes mellitus. Of course, there were many cases of tuberculosis of other organs than the lungs.

I have appended to this report three tables, similar to the ones in 1909 and 1910 reports, analyzing in detail the deaths, discharges, and those remaining in the hospital at the end of the year, and a study of them will show many things of interest as to the care of the tuberculous poor by the City of Baltimore.

The increase in the number of far advanced cases treated, and, as a result of it, the marked increase in the number of "bed patients," shows the need of a large nursing staff.

As the female wards, both white and colored, were full throughout the year 1911, and there was a waiting list of varying numbers desiring to be admitted to these wards, and as this same condition existed in the male wards, both white and colored, for quite a large part of the year, it is very evident that increased hospital accommodations are badly needed, especially so since no general hospital will, knowingly, admit to its wards a patient suffering with tuberculosis in an advanced form.

RECOMMENDATIONS.

The recommendations made in the 1909 and 1910 reports in regard to a larger nursing staff are still more urgent as we have increased our capacity from 165 to 200, but have only added one additional untrained nurse. I would recommend that our nursing staff be increased in graduate nurses from three to four, and in untrained nurses from ten to fourteen.

The need of a dish-washing machine becomes steadily more necessary with our increased number of patients, decreased number of patients who can work, and the growing difficulty of getting labor from the inmates of the almshouse. The fact that a dish-washing machine would sterilize the dishes used by the patients is in itself one of the strongest arguments for its need in a hospital devoted to the treatment of pulmonary tuberculosis.

I would call attention to the need of lockers for the patients' clothes, as at present they are exposed on the shelf of their bedside table.

The need of increased accommodations for patients becomes more evident all the time, as it frequently occurs that a patient dies while waiting his turn to enter the hospital, thus increasing the danger to the other members of his household.

The great distance of the present doctors' sleeping rooms from the hospital, and the fact that they are frequently called from their rooms to the hospital at night, in all sorts of weather, is more than an inconvenience, and I would recommend that a small building containing three bedrooms, a bath and sitting room be built near the present hos-

pital to accommodate the resident physicians of the tuberculosis hospital, and thereby give the necessary room for the increased number of doctors needed in the general hospital.

I desire to take this opportunity of thanking my assistants—Dr. Hussey, the resident physician; and Drs. Marrett and Hirschman, the assistant resident physicians—for their most excellent work during the past year, and it is due to their ability and hard work that during the past year there has been a most marked improvement in the management of the hospital and the treatment of the patients.

I also desire to thank Mrs. Heisse and the nurses under her for their excellent work in the care of the patients.

I desire, also, to thank Miss La Motte and the other nurses in the tuberculosis division of the Health Department for their aid and co-operation in the work of the Municipal Tuberculosis Hospital.

In addition to the tables appended to this report, I have added a brief history and description of this hospital and, also, our usual diet list.

Yours respectfully,

GORDON WILSON,
Physician-in-Charge.

THE CARE OF THE TUBERCULOUS POOR, WITH RECOMMENDATIONS.

At present the Supervisors have the following beds for tuberculosis patients:

1st—The Municipal Tuberculosis Hospital, Bay View grounds, for white and colored; capacity, 200 beds.

2nd—State Sanitorium, incipient cases, white; twelve beds.

3rd—Eudowood, incipient and advanced cases, white; ten beds.

4th—Hebrew Consumptive Hospital, incipient and advanced cases, white; six beds.

STATE SANATORIUM.

In 1911 only incipient cases were sent to the State Sanatorium, and the city kept constantly filled the 12 beds, with a "Waiting List" at all times.

During 1911, 45 patients were treated at the State Sanatorium for varying periods, 35 of whom were discharged during the year. The condition of those discharged was as follows:—"Apparently cured," 4; "arrested," 17; "improved," 12; unimproved, 2; died, none.

EUDOWOOD.

In 1911 the city has kept filled at Eudowood five beds in the advanced hospital, and five beds in the sanatorium, divided as follows: three beds for men and two beds for women in the hospital for advanced cases, and three beds for women and two beds for men in the division for incipient cases.

During 1911 city patients to the number of forty-three were treated, and thirty-three of whom were discharged or died. Of the thirty-three, one died at the hospital; five were discharged unimproved, twelve improved, twelve "arrested," and three "apparently cured."

At all times during the year there has been a long "Waiting List" of patients desiring to go to the advanced hospital.

HEBREW SANATORIUM.

Six beds at this sanatorium were filled throughout the year, with advanced cases chiefly.

During 1911 twenty patients were treated at the Hebrew Sanitarium at the expense of the city, and of these twenty, fourteen were either discharged or died. Of the fourteen, two died; one was discharged unimproved, seven improved, two "arrested," and two "apparently cured."

With reference to the Municipal Tuberculosis Hospital, any case was admitted to the hospital at request, as long as there were vacancies, and, when the wards were full, a waiting list was kept and patients admitted according to their position on the waiting list; the only exceptions being that moribund patients and those without homes were admitted out of order.

Once a week, patients applying for the different sanatoriums were examined at the City Hall Annex, and those who were unable to go, save as free patients, were assigned to the waiting list of the different sanatoriums according to the stage of advancement of the disease.

During the past year these waiting lists have been held to strictly and no patient has gone to a sanatorium as a city patient out of turn.

The policy of the Board is to send its incipient cases to the State Sanatorium; its Jewish patients to the Hebrew Sanatorium; its moderate and far advanced cases to Eudowood, and use the Municipal Tuberculosis Hospital for all patients not included above and for such as are on the waiting list of the sanatoriums, but who have to wait some time on account of their position on the list.

For the year 1912 the Supervisors of City Charities have contracted for 50 beds at the State Sanatorium for incipient and moderately advanced cases of tuberculosis of the lungs, advanced cases to be sent only on the completion of the new hospital at the sanatorium.

Respectfully,

GORDON WILSON, M. D.,
Tuberculosis Medical Director.

MUNICIPAL TUBERCULOSIS HOSPITAL, BALTIMORE, MD.

DAILY BILL OF FARE.

Breakfast, 6.30 A. M.—Oatmeal, hash or eggs, bread, butter, milk, coffee and tea. (Eggs to be served alternately in various styles).

Morning Diet, 9 A. M.—Milk, 5 oz., and one raw egg.

Dinner, 11.30 A. M.—Beef on Monday, Tuesday, Wednesday, Thursday and Saturday; mutton on Friday; bacon on Sunday; two vegetables each day from the following list: potatoes, tomatoes, turnips, lima beans, cabbage, rice, navy beans, spinach, onions and hominy; bread, tea and coffee; chicken soup on Saturday; another soup once a week.

Afternoon Diet, 2 P. M.—Milk, 5 oz., and one raw egg.

Supper, 4.30 P. M.—Bread, butter, coffee, milk, tea, molasses, crackers and cheese twice a week; stewed fruit when cheese is not furnished; corn bread on Fridays.

Night Diet, 8 P. M.—Milk and raw egg. (For "bed patients" only.)

Soup every day for "bed patients;" beef tea, custard, roast potatoes, steaks, etc., when specially ordered by physician.

Hospital capacity is 160 beds and when "running full" 175 quarts of milk and forty dozen eggs are used daily.

PRESENT POLICY OF THE SUPERVISORS OF CITY CHARITIES WITH TUBERCULOSIS SANITARIUMS HAVING "CITY BEDS."

First.—Those patients on the city list shall remain on this list so long as the superintendent of the sanitarium shall wish, not to exceed a total stay of more than six months, after which time the patient shall not be eligible for a city bed at the sanitarium.

Second.—As vacancies occur they shall be filled *in order* from the waiting list, duplicate copies of which shall be kept by the superintendent and by the agent of the Supervisors of City Charities.

Third.—An applicant for a city bed shall present an application filled out to the Tuberculosis Medical Director at the Supervisors' office in the City Hall Annex, on any Wednesday morning at 9 o'clock. If the applicant is a patient of the sanitarium at time of application, it shall not be necessary for him to present it in person, but he can mail it with endorsement of the superintendent to the agent of the Supervisors, and his name will be entered on the waiting list.

Fourth.—The agent of the Supervisors will accept without further medical examination an applicant for the sanitarium when endorsed on appended blank by the superintendent of this sanitarium, and his name will be entered in its regular order on the waiting list for this sanitarium.

Fifth.—When the agent of the Supervisors shall enter a name on the waiting list for the sanitarium, he will also mail to the superintendent of the sanitarium the name of the said applicant, together with such particulars about him as may seem necessary.

Sixth.—Once a month the agent of the Supervisors will mail a copy of his waiting list to the superintendent, to avoid errors.

Seventh.—If it so desired, a separate waiting list for each sex will be kept, and a separate list for incipient and for advanced cases, this to be carried out only at the request of the superintendent, and if carried out there shall be a definite division of the total number of beds both with reference to sex and to the stage of the disease.

Eighth.—No patient shall be eligible for a city bed at a sanitarium who has had in the past the benefit of sanitarium treatment.

HISTORY.

The Municipal Tuberculosis Hospital might be said to have been started in 1890, as in that year a separate ward was established in the Bay View Hospital for patients suffering with tuberculosis of the lungs. This was, I think, *the first attempt in this country to have a separate ward, in a general hospital, for tuberculosis patients on account of the knowledge of the fact that this disease is communicable.*

In 1903 the city appropriated $10,000 to build a hospital for consumptives on a plot of ground adjoining Bay View, and at a distance of a quarter of a mile from the main building. This hospital was opened on December 19, 1904, with forty-eight patients. Since then a separate kitchen building and laundry building have been erected, and there has been added a wing to the hospital. So far there has been expended about $60,000, which includes the new deep screened porches along the front of the building completed during the past summer (1911).

The hospital is a brick building a hundred and fifty feet long, two stories in height, with a basement whose floor is three feet below the level of the ground. The entrance is in the center of the south side, and extending from it the full length of each floor are porches, roofed and screened, on which are the beds of those who are sufficiently strong to sleep out in all sorts of weather. Extending back from the center of the north side is a T-shaped wing with deep covered porches on either side. In this wing are the isolating rooms for delirious or dying patients, doctors' and nurses' offices, laboratory, examining rooms and toilets, separate facilities being provided for each sex and color.

There are accommodations for 200 moderately and far advanced cases of pulmonary tuberculosis.

CITY PATIENTS IN HOSPITALS DURING 1911

Hospitals.	Patients in Beds, 50c. per day.	Hospital Days.	Out Patients, 50c. per day.	Payments.
Mercy Hospital	1,939	32,850	1,200	$17,025 00
University of Maryland	949	20,015	694	10,354 50
Maryland General	966	20,075	700	10,387 50
St. Joseph's	842	20,075	400	10,237 50
Maryland Homeopathic	356	8,424	401	4,412 50
St. Agnes'	356	12,587	.....	6,293 50
Crippled Children's	67	8,395	.....	4,197 50
Eudowood Sanitarium	42	3,650	.....	1,825 00
State Sanitarium	43	4,380	.....	2,190 00
Jewish Home for Consumptives.	18	2,190	.....	1,095 00
Pasteur Department	.....	.....	.....	1,950 00
Total	5,578	132,641	3,395	$69,968 00

Appropriation		$70,875 00
Expended for indoor patients	$66,320 50	
Expended for out-patients	1,697 50	
Expended for Pasteur treatment	1,950 00	
		69,968 00
Unexpended balance		$907 00
Refunded to city by Knights of Pythias for care of one of their death beneficiaries who died in hospital while being carried on city list		16 00

NUMBER OF PATIENTS BY MONTH.

Month.	Entered During Month.	Out-Patients.
In beds January 1, 1911	335	.....
January	491	264
February	403	292
March	496	287
April	444	273
May	475	370
June	474	388
July	515	333
August	457	402
September	438	201
October	402	260
November	391	199
December	257	126
Total	5,578	3,395

DISPENSARY TREATMENTS DURING 1911

Dispensary.	Treatments at Dispensary at 25c. each.	Visits at Homes at 35c. each.	Special Examinations at 50c. each.	Prescriptions at 15c. each.	Payments.
Eastern	3,200	696	394	1	$1,240 75
Northeastern	3,200	1,000	400	500	1,425 00
Baltimore General	3,200	1,357	200	70	1,385 45
Baltimore Eye Ear and Throat	2,800	.....	.....	.....	700 00
City Medical Agencies—					
Southern	4,253	1,221	.....	71	1,227 89
Northwestern	5,303	558	.....	50	1,289 46
Western	3,077	635	.....	.....	1,241 48
Total	.....	.....	.....	.....	$8,510 03

EXPENSES OF CITY MEDICAL AGENCIES.

Disbursements.	Southern.	Northwestern.	Western.	Total.
For salaries	$960 00	$960 00	$920 00	$2,840 00
For rent	144 00	120 00	128 97	392 97
For car fare	31 25	8 75	6 15	46 15
For drugs	103 39	164 65	131 60	399 64
For incidentals	20 50	44 81	60 91	126 22
Total	$1,259 14	$1,298 21	$1,247 63	$3,804 98

TRANSPORTATION OF THE DESTITUTE

This transportation fund is not intended to be used indiscriminately for the traveling expenses of the poor. It is only used for sending away from the city persons who are already charges or likely to become charges upon charity or upon the city, and for the purpose of sending them only to those places where inquiry made by our clerks shows they have work assured them or relatives or friends ready to care for them. If suitable cases, they are then sent to such places, no matter how distant. A large number of applicants either cannot or will not give any references from the place in which they claim to belong. Able-bodied men are rarely given transportation, and every effort is made to secure reimbursement from friends or relatives when possible.

No hardship falls on the applicants pending inquiry, as they are cared for if destitute by some co-operative charity or at the almshouse. The amount of the fund expended yearly has not increased, but is about one-half and sometimes only about one-third of what was expended some years ago before the Supervisors took charge of this branch of the work. Every applicant is dealt with carefully and considerately, with a view to transporting him to his home, if it is wise to do so.

DISPOSITION OF APPLICANTS.

Refused by us for cause	54
Would not allow investigation to be made	31
Refused to go after satisfactory investigation	1
Referred to U. S. Commissioner of Immigration	7
Referred to Federated Charities	37
Referred to Hebrew Benevolent Society	4
Referred to St. Vincent de Paul Society	1
Referred to German Society of Maryland	2
Died pending investigation	1
Returned by Steamboat Co. responsible for bringing them to Baltimore	2
Fare sent by friends	3
Transported after satisfactory investigation	64
Total	207

Expenditures:	
Fares	$405 56
Sundries	61,61
Total	$467 17
Repaid city by beneficiary.	72 13
Net cost	$395 04

Appropriation	$1,000 00
Expended	467 17
Balance	$532 83

Aliens reported to United States Commissioner of Immigration		7
Had pulmonary tuberculosis	2	
Were insane	5	
		7
Were deported at expense of United States Government	5	
Refused deportation by United States Government for cause	2	
		7
Amount of board paid by United States Government for aliens who were sheltered at Bay View pending deportation		$77 50

TEMPORARY CARE OF HOMELESS MEN

Since the old custom of allowing men to lodge in the police stations was wisely abandoned, the Friendly Inn Association has undertaken to give food and lodging to homeless men in return for work. The Association offers more comfortable and sanitary care than the police had given or could give. This institution developed as the expression of the feeling of many of our citizens that there should be a place where able-bodied men could secure food and lodging in return for work done by them, and be thus made independent of the alms of the public. Each man has the privilege of a bath, hot and cold water, individual towels, clean night clothing and a clean bed in a comfortable room, the bed linen being changed daily. It is impossible for men of the tramp class to make a rendezvous of this institution, for a tramp will not work, and the rules of the Inn make it impossible for a man to remain longer than three days without special permission from the manager, which means that he must justify his remaining longer either by showing a disposition to get work or by some other valid reason, each case being dealt with according to circumstances and facts.

The city has been paying the Association under contract the sum of 10 cents a day each for the care of its proportion of the beneficiaries.

The sum total does not exceed $1,000, the amount expended this year being $1,000. This limit of $1,000 may be reduced in future if the institution is able from its sale of firewood and the donations of the charitable to care wholly for the homeless men, who we hope will grow less in number with better times.

The almshouse is too far from the city to be used for admissions late in the day, and an institution like the Inn, whose benefits are earned by work, is the best agency for dealing with homeless men. The exceptional applicants who are too infirm to work are sent the next day by the Inn to the Bay View office.

The Friendly Inn Lodging House provided during the past year 28,637 meals and 12,864 lodgings for work done at the Inn. Three hundred and fifty-three meals and 276 lodgings were given free to those who were physically incapable of work, pending their transfer to Bay View, hospitals or other places suited to their needs. Six thousand nine hundred and eight baths were taken, 6,908 suits of clothing were fumigated and a number availed themselves of the free use of the laundry. Permanent employment was secured for twenty-five and temporary employment for eighty-four.

Some years ago it was decided to extend the time for obtaining food in return for work from 6 P. M. to midnight. This was done in the interest of those who might hesitate to send a hungry man to the Inn during the night hours.

CHILDREN'S DEPARTMENT

During the year ending December 31, 1911, 128 applications were made to have 198 children placed in institutions or otherwise cared for. A number of applications came to us in which the children were not primarily involved and the cases were at once referred to the proper agencies for relief. These, of course, are not included in this report. The recorded applications were disposed of as follows:

	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
Referred to private charity with hope of keeping the family together or of the family paying board for the children	38	21	13	10	82
Referred to private charity to place in good free private homes	8	19	3	3	33
Parents or relatives found able and willing to care for	10	4	8	10	32
Total not accepted	56	44	24	23	147
Placed in institutions as follows to become city charges:					
St. Vincent's Infant Asylum	4	5			9
Nursery and Child's Hospital	6	4			10
St. Elizabeth's Home for Colored Children			7	7	14
St. Mary's Home for Colored Boys			2		2
Maryland Home for Friendless Colored Children			5	7	12
St. Vincent's Male Orphan Asylum	2				2
St. Mary's Female Orphan Asylum		2			2
Total accepted	12	11	14	14	51

Of the above 198 children 37 were illegitimate, 21 white and 16 colored; 12 were abandoned, 9 white and 3 colored, of whom 8 were foundlings, 6 white and 2 colored.

We were summoned by the magistrate for juvenile cases to appear in 41 cases, involving 73 children, 33 white and 40 colored. Parents were allowed to retain 20 of these children, 1 was committed to an industrial school and 52 were committed as neglected children to institutions, 37 to become city charges and 15 to be maintained without expense to the city.

Seventeen children, 16 white and 1 colored, were returned to parents and other relatives. As far as possible, we have kept in touch with parents and relatives of the children under our supervision. Requests came from many of them to have the children returned to their care. After careful inquiry and visitation of the homes, their requests were granted only where the conditions were found favorable to the proper development of the children.

A number of free private homes were offered during the year for our wards. Some were refused as unsuitable. For several there were no children of the age desired. Ninety-three were accepted after visitation and careful inquiry by correspondence and interview with pastors and physicians and others, and 98 of the children, 68 white and 25 colored, were placed in these homes. In these cases either there are no parents or interested relatives living; or, if living, they offer no hope of ever being able or willing to care for the children properly.

CHILDREN IN FREE PRIVATE HOMES.

	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
December 31, 1910	116	110	43	15	284
Placed during 1911	38	29	19	6	92
	154	139	62	21	376
Changes during 1911:					
Returned—Unsuited to homes	18	15	11	6	50
Returned—Unsuitable homes	4	2	.....	1	7
Transferred to relatives	2	.....	.....	.....	2
Transferred to industrial schools	1	2	2	.....	5
Became of age	1	2	3	1	7
Married	.....	3	.....	.....	3
Legally adopted	.....	2	.....	.....	2
Ran away	.....	.....	3	.....	3
	26	26	19	8	79
December 31, 1911	128	113	43	13	297

The parents of the children committed to the institutions have been encouraged to feel their responsibility for the support of their children, even though taken from them in their improper homes, and to contribute something from their earnings toward the board of the children in the institutions. Reimbursement from this source amounted to $56.20.

The number of deaths among children on the city's list has been as follows:

	White.	Colored.	Total.
In St. Vincent's Infant Asylum	5	.....	5
In Nursery and Child's Hospital	4	.....	4
In St. Elizabeth's Home	.....	9	9
In boarding homes	1	.....	1
Total	10	9	19

Eighteen of these were under one year of age, 10 abandoned, 7 being foundlings. One was over one and under two years of age.

The following table shows the death rate of the children under two years of age received during 1911:

	Received under 2 years of age.			Died.		
	Foundlings.	Others.	Total.	Foundlings.	Others.	Total.
St. Vincent's Infant Asylum	3	3	6	3	3	6
Nursery and Child's Hosital	3	6	9	2	2	4
St. Elizabeth's Home	2	7	9	2	5	7
Total	8	16	24	7	10	17

Eleven children, 4 white and 7 colored, were transferred to industrial schools—2 to St. Mary's Industrial School, 2 to House of Good Shepherd, 3 to Maryland House of Reformation for Colored Boys, 1 to St. Joseph's School, Clayton, Del., and 3 to House of Good Shepherd for Colored Girls.

Seven children, 6 white and 1 colored, who were found to need special treatment, were transferred as follows: Three to Municipal Tuberculosis Hospital, 2 to Maryland Training School for Feeble Minded, 1 to Maryland School for Deaf and Dumb at Frederick, Md., and 1 to Le Coutaulx St. Mary's Institution for the Improved Instruction of Deaf Mutes, of Buffalo, N. Y.

Two children were transferred to St. James' Home, 1 to Boys' Home, and 5 to Henry Watson Children's Aid Society. These 8 were received and will be cared for by these agencies without cost to the city. The Henry Watson Children's Aid Society has also received several children by commitment through the Juvenile Court which otherwise would have become charges on the city.

Eight children, 4 white and 4 colored, became of age.

Three white children in free family homes were married.

Two white children in free family homes were legally adopted.

Two thousand two hundred and sixty-one visits were made in order to make careful inquiry into the circumstances and needs of 528 children. This includes visits made to free private homes and to boarding homes.

The children who are under the supervision of the Supervisors of City Charities are distributed as follows:

	White.		Colored.		Total.	Rate of Payment per Day, Cents
	Male.	Female.	Male.	Female.		
With payment of board:						
In St. Vincent's Infant Asylum	16	4	.....	.....	20	20
In Nursery and Child's Hospital	13	7	.....	.....	20	20
In St. Elizabeth's Home	.....	.....	17	33	50	20
In Maryland Home for Friendless Colored Children	.....	.....	5	10	15	20
In St. Mary's Home	.....	.....	13	.....	13	20
In Home of the Friendless	6	2	.....	.....	8	20
In St. Vincent's Male Orphan Asylum	20	.....	.....	.....	20	22
In St. Mary's Female Orphan Asylum	.....	70	.....	.....	70	24
In St. Joseph's School of Industry	.....	13	.....	.....	13	24
	55	96	35	43	229	.....
In boarding homes	.....	1	.....	.....	1	.....
	55	97	35	43	230	.....
Without payment of board:						
In institutions	30	21	7	21	79	.....
In private homes	128	113	43	13	297	.....
Total number of children under our care and supervision	213	231	85	77	606	.....

As heretofore, in all the destitute children's cases we have endeavored by thorough inquiry to learn first the real needs in each case, and then to discover all the resources that could be drawn upon to meet these needs.

THE INSANE DEPARTMENT

Every means is used by the Supervisors to provide care and treatment, as soon as possible, for persons mentally diseased. Prompt treatment is one of the surest means to recovery. While the Supervisors constantly urge upon the State its duty to make more adequate provision for the insane in well-equipped hospitals on extensive grounds, because, as a rule, the State institutions can best care for the insane, we wish to call the attention of the public to the fact that the care and treatment of the insane at Bay View Asylum, which is used at present for many cases, acute as well as chronic, is humane and reasonably efficient, the great need for complete State care is self-evident, not only in the city, but throughout the entire State.

If the best results are to be obtained mentally, physically and morally, complete State care must be given and should be given at once. The over-crowded condition at Bay View and the miserable surroundings of the insane in the county almshouses, all point to the need of concerted, energetic action by the friends of these unfortunates. Complete State care can only be accomplished by a bond issue of $800,000. The State is practically out of debt, and, financially, has never been in a better position to shoulder this expense. The Supervisors of City Charities urge the wisdom of complete State care of the insane at once.

It is interesting to note the steady increase in the amount derived from the "reimbursing insane" since the Supervisors took charge of this branch of the work. At that time the City Comptroller estimated that $2,500 annually was the amount to be expected from this source. The first year the amount shot up to $7,000, and has since steadily increased, until, in the past year, it amounted to $17,713.

INSANE DEPARTMENT.

Patients were sent to hospitals wholly or in part at the expense of the city as follows:

	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
City Reception Hospital, Bay View	123	86	33	32	274
Mt. Hope	8	12	..	..	20
Spring Grove	29	23	..	..	52
Springfield	33	31	..	..	64
	193	152	33	32	410

December 31, 1911, the number of city patients was:

In Mt. Hope	250	
In Spring Grove	269	
In Springfield	677	
		1,196
In City Reception Hospital, Bay View		471
		1,667

This is an increase of seventy, as compared with the same date in 1910.

PAYMENTS TO INSANE HOSPITALS FOR 1911.

Maryland Hospital for the Insane, 1 year, to December 31, inclusive	$32,121 63	
Springfield State Hospital, 1 year, to December 31, inclusive	82,098 31	
Mt. Hope Retreat, 1 year, to December 31, inclusive	37,416 72	
		$151,636 66
Paid to physicians for filling out insanity certificates in special cases		373 00
Transferring Annie Friedel to Springfield		2 40
Transferring patients from Bay View to Springfield		27 95
Transferring patients from Bay View to Spring Grove		10 00
Exhibit at Exposition and Food Show		246 52
Transferring Mamie Winters to Texas, Baltimore County		2 50
Entertainment and moving-picture shows at Bay View		87 50
For typewriter		60 05
		$152,446 28
Balance of appropriation unexpended		28,053 72
		$180,500 00
Received by the city in 1911 from relatives and others for 252 reimbursing patients		$17,713 65

BAY VIEW ASYLUM

Financial Statement for the Year Ending December 31, 1911.

APPROPRIATIONS.

For salaries		$53,590 00	
For expenses	$135,359 00		
From Contingent Fund (furnishing hospital)	1,200 00		
From Contingent Fund (gas main),	495 25		
Total expense fund		137,054 25	
Unexpended balance of fund for new hospital carried forward to 1911		28,864 64	
Appropriated for furnishing new hospital		3,500 00	
Appropriated for "power-plant and machinery"	$125,000 00		
Carried forward from 1910	18,577 17		
Total for power-plant and machinery		143,577 17	
Additional land and tuberculosis hospital work	$16,500 00		
Received from Building Inspector	3,767 69		
Total Tuberculosis Fund		20,267 69	
Appropriated from Contingent Fund for railroad siding and tramway		1,500 00	
Total amount of appropriations			$388,353 75

AMOUNT OF APPROPRIATION EXPENDED.

Salaries	$51,152 23	
Expenses	137,054 25	
New hospital	25,071 13	
Furnishing new hospital	3,500 00	
Power-plant and machinery	124,443 59	
Additional land and tuberculosis hospital work,	20,267 69	
Total expended		361,488 89

BALANCE UNEXPENDED.

Salaries	$2,437 77	
New hospital	3,793 51	
Power-plant and machinery	19,133 58	
Railroad siding and tramway	1,500 00	
Total unexpended		$26,864 86

CLASSIFICATION OF DISBURSEMENTS.

Administration	$38,377 21	
Insane	43,262 21	
Infirmary	39,123 12	
General hospital	34,291 13	
Tuberculosis hospital	23,436 36	
Farm and stable	7,154 08	
Special improvements	175,844 78	
		$361,488 89

RECEIPTS PAID CITY COMPTROLLER.

Board of inmates, collected by Superintendent	$494 25	
Board of insane, collected by Mr. Grasty	1,144 64	
Sale of old material	134 68	
		1,773 57
Net cost to the city		$359,715 32

Average census, 1,530.

Average cost of maintenance in all departments: 1908, $100.89; 1909, $103.82; 1910, $113.12; 1911, $120.19.

COST PER CAPITA OF THE SEVERAL DEPARTMENTS.

Insane	$120 19
Tuberculosis hospital	183 50
General hospital	186 37
Infirmary	84 54

VALUE OF FARM PRODUCTS.

		1911.	1910.
29,469 gallons milk, at	$0 18	$5,304 42	
225 dozen eggs, at	21¾	48 00	
27 bushels salsify, at	75	20 25	
2,877 bunches celery, at	03	86 31	
16 pecks peppers, at	50	8 00	
117 bushels parsnips, at	50	58 50	
82 bushels kale, at	25	20 50	
1,550 heads lettuce, at	01	15 50	
78 bushels old onions, at	75	58 50	
24 bushels small onions, at	3 00	72 00	
630 bushels radishes, at	01	6 30	
648 bunches leek, at	01	6 48	
1,470 bunches parsley, at	01	14 70	
1,000 heads cabbage, at	03	30 00	
41 bushels peas, at	50	20 50	
29 dozen squash, at	20	5 80	
2,445 bunches beets, at	02	48 90	
1,486 dozen corn, at	12	178 32	
1,196 bushels tomatoes, at	30	358 80	
26 bushels string beans, at	60	15 60	
52 bushels lima beans, at	70	36 40	
177 bushels turnips, at	15	26 55	
64 bushels ruta bagas, at	25	16 00	
122 bushels potatoes, at	75	91 50	
120 quarts raspberries, at	10	12 00	
50 bushels barley, at	80	40 00	
215 bushels oats, at	55	118 25	
400 bushels wheat, at	1 00	400 00	
20 tons straw, at	10 00	200 00	
3,000 bundles fodder, at	02	60 00	
5 tons hay, at	20 00	100 00	
138 barrels corn, at	3 50	483 00	
28 barrels short corn, at	2 50	70 00	
15,256 pounds pork, at	09	1,373 04	
Total value of farm products		$9,404 12	$9,462 51

EXPENSES.

Salaries	$2,020 73		
Seeds and implements	282 11		
Fertilizers and lime	300 93		
Sundries, threshing, store account and repairs	318 48		
Hay, feed and straw	3,915 33		
Exchanging and purchasing cows	994 00		
Purchasing horses	600 00		
Purchasing boar	27 50		
Cost of producing farm products		8,459 08	6,137 43
Profit		$945 04	$3,325 08

STATISTICS BAY VIEW HOSPITAL AND INFIRMARY

TABLE A.

ADMISSIONS, DEATHS, DISCHARGES, ETC.

MONTHS.	Admitted.		Born.		Died.		Discharged.		Escaped.		Eloped. on Pass.		Remaining.	
	1911.	1910.	1911.	1910.	1911.	1910.	1911.	1910.	1911.	1910.	1911.	1910.	1911.	1910.
January	183	181	.....	.....	40	55	56	44	5	6	2	9	1,676	1,645
February	142	170	.....	1	45	52	76	113	7	4	6	11	1,684	1,636
March	149	162	1	2	60	53	145	203	15	8	16	15	1,598	1,521
April	156	140	.....	1	57	60	153	102	11	3	22	17	1,511	1,480
May	174	148	1	1	43	55	152	142	20	6	26	9	1,445	1,417
June	150	139	.....	.....	36	55	92	76	6	5	5	8	1,456	1,412
July	163	147	.....	.....	41	61	113	69	3	9	5	16	1,457	1,404
August	141	147	.....	.....	43	36	114	58	13	8	5	19	1,423	1,430
September	164	141	2	.....	41	48	82	74	3	8	8	16	1,455	1,425
October	169	156	.....	2	49	40	60	68	4	11	8	12	1,503	1,450
November	186	189	.....	1	51	37	57	61	3	2	12	14	1,566	1,528
December	178	199	.....	1	46	60	76	60	11	4	10	8	1,601	1,596
Totals	1,955	1,919	4	9	552	612	1,176	1,070	101	74	125	154	.....	.....

TABLE A—*Continued.*

	1911.		1910.	
Population January 1	.....	1,596	.....	1,578
First admissions during year	1,693	.....	1,711	.....
Readmissions during the year	266	.....	217	.....
		1,959		1,928
Total	.....	3,555	.....	3,506
Total discharges, etc	.....	1,954	.....	1,910
Remaining at end of year, Dec. 31	.....	1,601	.....	1,596

SUPPLEMENT TO TABLE A.

Persons Admitted.	Times Admitted.	Total Admissions.
1,469	1	1,469
188	2	376
31	3	93
4	4	16
1	5	5
1,693	....	1,959

TABLE B.

Average Population by Months.

Months.	White.			Colored.			Totals.	
	Males.	Females.	Children.	Males.	Females.	Children.	1911.	1910.
January	786	399	20	210	219	4	1,638	1,618
February	819	409	20	221	221	4	1,694	1,654
March	773	409	21	211	220	5	1,639	1,588
April	702	404	20	196	222	5	1,549	1,485
May	637	408	21	188	218	4	1,476	1,438
June	619	392	21	187	213	3	1,435	1,409
July	628	397	19	180	221	3	1,448	1,411
August	614	406	19	180	223	2	1,444	1,414
September	595	406	20	179	223	2	1,425	1,426
October	630	412	23	183	228	2	1,478	1,437
November	682	413	22	191	225	2	1,535	1,488
December	727	414	22	202	229	3	1,597	1,618
Averages, 1911	$684^{4}/_{12}$	$405^{9}/_{12}$	$20^{1}/_{12}$	194	$221^{10}/_{12}$	$3^{3}/_{12}$	$1,529^{10}/_{12}$	.....
Averages, 1910	$665^{10}/_{12}$	$383^{5}/_{12}$	$17^{1}/_{12}$	$193^{8}/_{12}$	$225^{7}/_{12}$	$3^{6}/_{12}$	.....	$1,500^{4}/_{12}$

TABLE C.

Birthplace of Persons Admitted.

Natives.	1911.	Foreigners.	1911.
Baltimore	842	England	34
Maryland (outside of Baltimore)	300	Ireland	147
Connecticut	15	Scotland	6
Alabama	2	France	10
California	2	Germany	102
Colorado	1	Bohemia	5
Delaware	13	Austria	15
District of Columbia	23	Russia	45
Florida	11	Poland	16
Georgia	6	Sweden	2
Illinois	5	Norway	1
Iowa	1	Italy	20
Kentucky	5	Jamaica	1
Louisiana	1	Hungary	2
Maine	1	Finland	2
Massachusetts	8	Lithunia	2
Mississippi	2	Roumania	1
New York	33	Cuba	1
New Jersey	13	Switzerland	2
North Carolina	13	Canada	1
New Hampshire	4	Total foreigners	415
Ohio	4	Total natives	1,544
Pennsylvania	50		
Rhode Island	7	Grand total	1,959
South Carolina	10		
Tennessee	3		
Virginia	161		
West Virginia	15		
Vermont	1		
Unknown	2		
Total	1,544		

TABLE D.

PERIOD OF RESIDENCE IN BALTIMORE OF PERSONS ADMITTED.

Born in Baltimore	842
Less than one week	32
Over one week and less than one month	33
Over one month and less than three months	23
Over three months and less than six months	27
Over six months and less than one year	25
Over one year and less than two years	21
Over two years	956
Total	1,959

TABLE E.

AGES OF PERSONS ADMITTED.

Under 1 year	6
From 1 to 10 years	21
From 11 to 16 years	42
From 17 to 20 years	125
From 21 to 30 years	350
From 31 to 40 years	355
From 41 to 50 years	375
From 51 to 60 years	333
From 61 to 70 years	228
From 71 to 80 years	91
From 81 to 90 years	31
From 91 to 100 years	2
Total	1,959

TABLE F.

Intemperate adults	1,215
Temperate adults	675
Children, habits of parents unknown	69
Total	1,959

TABLE G.

NUMBER OF COMMITMENTS—SEX, COLOR AND PERIOD OF COMMITMENTS.

MONTHS.	SEX.					PERIOD OF COMMITMENT.									
	White Males.	White Females.	Colored Males.	Colored Females.	Totals.	Three Days.	Ten Days.	One Week.	Two Weeks.	Three Weeks.	One Month.	Two Months.	Three Months.	Four Months.	Six Months.	One Year
January	7	1	...	1	9	..	..	..	..	..	1	8	...	...	...	...
February	11	...	3	...	15	..	..	..	..	..	1	13	...	1	...	...
March	8	2	2	2	14	..	..	..	1	..	...	12	...	...	1	...
April	10	3	4	1	18	..	..	..	1	..	1	14	...	...	2	...
May	5	3	4	...	12	..	..	..	1	..	1	10	...	...	...	...
June	14	2	1	2	19	..	..	..	1	..	1	16	...	...	...	1
July	10	2	1	1	14	1	..	..	..	..	1	12	...	...	...	...
August	10	2	3	1	16	..	..	..	..	..	1	13	...	...	2	...
September	11	5	1	...	17	..	..	..	..	..	...	14	...	...	2	1
October	7	3	1	1	12	..	..	..	..	..	2	8	...	...	2	...
November	11	5	2	3	21	..	..	..	..	..	...	19	...	1	1	...
December	15	3	3	1	22	..	..	1	1	..	3	13	1	1	2	...
Totals, 1911.	119	31	25	14	189	1	..	1	5	..	12	152	1	3	12	2
Totals, 1910.	129	31	23	8	191	..	1	..	9	1	30	130	4	2	14	...

TABLE H.

NUMBER OF TIMES PERSONS WERE COMMITTED.

1911.	Once.	Twice.	Three Times.	Totals.
White Males	89	9	4	102
White Females	27	2	0	29
Colored Males	23	1	0	24
Colored Females	14	0	0	14
Total persons	153	12	4	169
Total commitments	153	24	12	189

TABLE I.

BIRTHPLACE OF PERSONS COMMITTED.

NATIVES.	1911.	FOREIGNERS.	1911.
Baltimore	83	England	3
Maryland	24	Ireland	12
Virginia	15	Scotland	1
West Virginia	1	Germany	19
New York	3	Russia	2
Pennsylvania	7	Austria	1
District of Columbia	1	Hungary	1
North Carolina	2	France	2
South Carolina	1	Nova Scotia	1
Massachusetts	1	Poland	1
Ohio	2	China	1
Delaware	2	Africa	1
Indiana	1		
Connecticut	1	Total foreigners	45
		Total natives	144
Total	144	Grand total	189

TABLE J.

AGES OF PERSONS COMMITTED.

1911.	White Males.	White Females.	Colored Males.	Colored Females.
From 16 to 20 years	2	5	.....	.....
From 21 to 30 years	10	4	2	2
From 31 to 40 years	12	6	3	3
From 41 to 50 years	37	9	3	4
From 51 to 60 years	24	5	9	2
From 61 to 70 years	23	2	3	1
From 71 to 80 years	9	.....	4	2
From 81 to 90 years	2	.....	1	.....
From 91 to 100 years	.....	.....	.....	.....
Totals	119	31	25	14

TABLE K.

DEATHS IN EACH MONTH BY SEX AND COLOR.

MONTHS.	White Males.	White Females.	Colored Males.	Colored Females.	Totals.
January	16	6	8	10	40
February	19	4	15	7	45
March	20	11	20	9	60
April	19	16	11	11	57
May	14	6	17	6	43
June	12	6	12	6	36
July	18	7	8	8	41
August	18	3	13	9	43
September	25	5	7	4	41
October	14	12	13	10	49
November	17	8	17	9	51
December	20	5	12	9	46
Total 1911	212	89	153	98	552
Total, 1910	251	118	153	90	612

TABLE L.

AGES OF PERSONS WHO DIED DURING 1911.

Less than 1 year	[illegible]
1 to 10 years	3
11 to 16 years	[illegible]
17 to 20 years	17
21 to 30 years	61
31 to 40 years	73
41 to 50 years	93
51 to 60 years	108
61 to 70 years	7[illegible]
71 to 80 years	5[illegible]
81 to 90 years	2[illegible]
91 to 100 years	[illegible]
Total	552

STATISTICAL REPORT

TABLE I.

SURGICAL DISEASES TREATED, JANUARY 1, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
Abscess:									
a. Axillary	1		1						
b. Rectal	1						1		
c. Pharyngeal		1							
d. Hepatic	1							1	
Abortion	1			1					
Adenitis:									
a. Infectious		1							
b. Tuberculous		1							
Adhesions	1	1	1						
Alcoholism:									
a. Acute	1			1					
b. Chronic		1							
Amyloid Disease		2							
Anaemia:									
a. Primary	1				1				
b. Secondary		2							
Aneurysm:									
a. Ascending Arch	1							1	1
b. Abdominal		1							
Appendicitis:									
a. Acute	1		1						
b. Chronic	3		2	1					
Arterio-Sclerosis		5							
Arthritis:									
a. Deformans	2	1			1		1		
b. Chronic	1	3		1					
c. Gonorrhoeal	2	1		1			1		
d. Syphilitic	1			1					
e. Villous	1			1					
Balanitis	2	1		1			1		
Bladder:									
a. Acute Cystitis									
b. Chronic Cystitis		6							
Burn	5		2	3					

TABLE I—*Continued.*

SURGICAL DISEASES TREATED, JANUARY 1, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
Chronic Bursitis	....	1	....	....	....	....	....	....	....
Carbuncle	1	....	....	1	....	....	....	....	....
Carcinoma:									
a. Uterus	1	....	....	....	....	1	....	....	....
b. Penis	1	....	....	....	....	....	....	1	....
c. Breast	3	....	....	....	....	....	2	1	....
d. Nose and face	3	....	....	....	1	....	....	2	....
e. Liver	....	....	....	....	....	....	....	....	....
f. Tonsil	....	1	....	....	....	....	....	....	....
g. Stomach	2	....	....	....	....	....	....	2	2
Cataract	1	....	....	1	....	....	....	....	....
Cellulitis	5	1	2	1	....	....	2	....	....
Chorea (chronic)	....	1	....	....	....	....	....	....	....
Condylomata (syph.)	1	4	....	1	....	....	....	....	....
Conjunctivitis:									
a. Gonorrhoeal	1	....	....	1	....	....	....	....	....
b. Catarrhal	1	....	1	....	....	....	....	....	....
Contusion:									
a. Foot and knee	3	1	2	....	....	....	1	....	....
b. Shoulder	1	....	1	....	....	....	....	....	....
Coxalgia	1	....	....	....	....	....	....	1	....
Debility	1	....	....	....	1	....	....	....	....
Delirium Tremens	1	....	....	....	....	....	....	1	....
Dementia:									
a. Paranoides:	1	1	....	....	1	....	....	....	....
b. Praecox	....	1	....	....	....	....	....	....	....
Diabetes Mellitus	....	2	....	....	....	....	....	....	....
No diagnosis	12	....	....	....	....	....	....	....	....
Ear:									
a. Otitis Media	....	1	....	....	....	....	....	....	....
Elephantiasis	1	....	....	1	....	....	....	....	....
Empyema	1	....	....	1	....	....	....	....	....
Epididymitis	....	1	....	....	....	....	....	....	....
Epilepsy:									
a. Idiopathic	1	4	....	....	1	....	....	....	....
b. Jacksonian	....	1	....	....	....	....	....	....	....
Epithelioma:									
a. Leg	1	....	....	....	....	....	....	1	....
b. Face	4	....	3	....	....	....	....	1	....
Erysipelas	5	....	4	1	....	....	....	....	....
Exostosis	1	....	....	1	....	....	....	....	....
Keratitis	....	1	....	....	....	....	....	....	....

TABLE I—*Continued.*

SURGICAL DISEASES TREATED, JANUARY 1, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
Fistula:									
a. Vesical	....	1	....	....	....	....	....	....	....
b. Recto-Vaginal	2	....	1	1	....	....	....	....	....
Flat-foot	1	....	....	1	....	....	....	....	....
Fracture:									
a. Humerus	7	....	2	3	....	....	2	....	....
b. Colles	1	....	1	....	....	....	....	....	....
c. Toe	1	....	1	....	....	....	....	....	....
d. Rib	4	....	3	1	....	....	....	....	....
e. Femur	11	....	2	3	2	....	....	4	....
f. Hip	3	....	....	3	....	....	....	....	....
g. Malar bone	....	....	....	....	....	....	....	....	....
h. Nose	1	....	1	....	....	....	....	....	....
i. Tibia	2	....	1	....	....	....	1	....	....
j. Pott's	1	....	....	1	....	....	....	....	....
k. Elbow	2	....	....	....	....	....	2	....	....
Frost-bite	3	....	3	....	....	....	....	....	....
Furunculosis	3	....	....	2	....	....	1	....	....
Gangrene:									
a. Traumatic	3	....	....	1	....	....	....	....	....
b. Syphilitic	1	....	1	....	....	....	....	....	....
Gastritis	....	1	....	....	....	....	....	....	....
Gonorrhoea	1	....	....	....	....	1	....	....	....
Heart:									
a. Endocarditis	....	1	....	....	....	....	....	....	....
b. Aortic Insufficiency	1	3	....	....	....	....	....	1	....
c. Mitral Insufficiency	1	8	....	1	....	....	....	....	....
d. Myocarditis	1	....	....	1	....	....	....	....	....
Hemiplegia	1	....	....	1	....	....	....	....	....
Hemorrhage, Cerebral	....	1	....	....	....	....	....	....	....
Hemorrhoids	1	....	....	....	....	....	1	....	....
Hernia:									
a. Inguinal	7	2	3	....	1	2	1	....	....
b. Abdom.	....	1	....	....	....	....	....	....	....
c. Femoral	1	....	1	....	....	....	....	....	....
Hydrocele	3	1	2	1	....	....	....	....	....
Hyperacidity	....	1	....	....	....	....	....	....	....
Hysteria	1	3	....	....	1	....	....	....	....
Imbecility	1	1	....	....	....	....	....	....	....
Inanition	2	....	....	....	....	2	....	....	....
Infection:									
a. Leg and foot	5	....	3	1	....	....	1	....	....

TABLE I—*Continued.*

SURGICAL DISEASES TREATED, JANUARY 1, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
b. Arm	1					1			
c. Heel	1		1						
Influenza	1							1	
Intestines:									
a. Enteritis									
b. Entero-colitis	1	1		1					
c. Obstruction	1							1	
Iritis	1						1		
Joints:									
a. Synovitis	3			1	1		1		
Kidney:									
a. Chronic Nephritis	4	5		3	1				
b. Acute	1							1	
Laceration:									
a. Hand	2		1				1		
b. Scalp	1		1						
c. Knee	3		2				1		
Laryngitis		1							
Leucorrhoea		1							
Lungs:									
a. Chronic Bronchitis		4							
b. Bronchiectasis		1							
Mal. Perforans	1						1		
Myalgia	1						1		
Neuritis (alcoholic)	1	1		1					
Optic Atrophy	1								
Osteomyelitis	1			1					
Papilloma (Venereal)	1		1						
Paraplegia	1	4						1	
Pelvic Inflamm. Disease	2	1		1		1			
Penis:									
a. Chancroid	5	3	2	1			2		
b. Chancre									
c. Hypospadias	1					1			
d. Phimosis		1							
Peritonitis	1	1						1	2
Pharyngitis Acute	1		1						
Phlebitis and Thrombosis	2		2						
Pleurisy:									
a. Acute Fibrinous		2							
b. With effusion		1							

TABLE I—*Continued.*

SURGICAL DISEASES TREATED, JANUARY 1, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Disease.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
Pneumonia Broncho	4	5	....	....	....	....	....	4	....
Pregnancy	1	2	....	1	....	....	....	....	....
Prolapse:									
a. Uterus	....	....	....	....	....	....	....	....	....
b. Ovary	1	....	1	....	....	....	....	....	....
Prostate:									
a. Enlarged	3	....	....	....	1	....	1	1	....
b. Prostatitis	....	1	....	....	....	....	....	....	....
Psychosis Invol	....	1	....	....	....	....	....	....	....
Pyelonephritis	1	....	....	....	....	....	1	....	....
Raynaud's Disease	....	1	....	....	....	....	....	....	....
Rectum:									
a. Prolapse	1	....	1	....	....	....	....	....	....
b. Stricture	2	....	....	1	....	....	1	....	....
c. Proctitis	1	1	....	....	....	....	....	1	....
d. Rectocele	....	1	....	....	....	....	....	....	....
Salpingitis	2	....	....	....	....	....	1	1	1
Sarcoma:									
a. Knee	2	....	....	1	....	....	....	1	1
b. Parotid	1	....	....	....	1	....	....	....	....
c. Neck	2	....	....	....	....	....	1	1	....
Scrotum (Hydrocele)	....	....	....	....	....	....	....	....	....
Senility	2	5	....	1	....	....	....	1	1
Sinus	2	1	....	1	1	....	....	....	....
Skin:									
a. Dermatitis Venenata	2	....	2	....	....	....	....	....	....
b. Scabies	....	2	....	....	....	....	....	....	....
c. Eczema	3	....	....	2	....	....	1	....	....
Sprain:									
a. Foot	4	....	....	3	....	....	1	....	....
Stenosis:									
a. Mitral	....	1	....	....	....	....	....	....	....
Syphilis:									
a. Primary	5	....	2	3	....	....	....	....	....
b. Secondary	7	....	2	5	....	....	....	....	....
c. Tertiary	9	4	6	2	....	....	1	....	....
d. Congenital	1	....	....	1	....	....	....	....	....
e. Cerebral	3	....	....	....	....	....	1	2	....
Tabes Dorsalis	....	2	....	....	....	....	....	....	....
Thyroid:									
a. Adenoma	1	....	....	....	....	....	....	1	....
Tonsilitis	....	....	....	....	....	....	....	....	....

TABLE I—*Concluded.*

SURGICAL DISEASES TREATED, JANUARY 1, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
Trauma:									
a. Leg	3		2	1					
b. Head									
c. Shoulder	3		3						
Tuberculosis:									
a. Pulmonary	7	4		3	1			3	
b. Bone	11	2		2	1	1	5	2	
c. Joints		2							
d. Adenitis	2	2		1				1	1
e. Hip	2			1				1	
f. Larynx		1							
g. Peritonitis	1	1						1	
h. Enteritis		2							
i. Periostitis		1							
Ulcer:									
a. Varicose	33	2	13	12	3		3	2	1
b. Syphilitic	15		6	8				1	
c. Decubitis	1	2	1						
d. Tuberculous	1		1						
Uraemia	1							1	
Urethra:									
a. Urethritis	6	4	1	5			1		
b. Stricture	1			1					
Uterus:		1							
a. Cervical Stenosis		1							
b. Myoma		2							
c. Carcinoma	2						2		
d. Retroflexion	1	1	1						
e. Prolapse	3	1	2				1		
Vagina:									
a. Vaginitis	3		1	1			1		
b. Relaxed Outlet		1							
c. Cystocele		1							
Varicose Veins									
Visceroptosis		1							
Wounds:									
a. Scalp	3		2				1		
c. Face	2		2						
Total	351	157	103	109	22	9	47	50	11

TABLE II.

Age of Patients in Hospital During the Year 1911.

Surgical.

Age.	White Males.	White Females.	Colored Males.	Colored Females.
1 to 10 years	1	6	.....	2
10 to 20 years	2	6	3	3
20 to 30 years	13	17	10	13
30 to 40 years	18	9	13	9
40 to 50 years	41	9	14	5
50 to 60 years	50	6	7	5
60 to 70 years	36	12	4	5
70 to 80 years	16	7	3	.....
80 to 90 years	2	.....	1	1

TABLE III.

Total Number of Cases Treated in Surgical Dispensaries.

Male.		Female.	
		September 7 to 30	248
October 18 to 31	78	October 1 to 31	238
November 1 to 30	206	November 1 to 30	298
December 1 to 31	199	December 1 to 31	254
Total	483	Total	1,038

Total, male	483
Total, female	1,038
Total cases	1,521

TABLE I.

MEDICAL DISEASES TREATED, JANUARY 1, 1911, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
Abdominal pain	1		1						
Abscess, rectal		1							
Accidents									
Acidosis		1							
Addison's Disease		1							
Adenitis	1		1						
Adhesions		1							
Alcoholism:									
a. Acute	9		9						
b. Chronic	7	3	1	5				1	
Anemia:									
a. Primary	1						2	1	
b. Secondary		9							
Aneurism:									
a. Abdominal	2			2					
b. Aortic Arch	7	1		4				3	2
c. Carotid	1	1						1	
d. Innominate		1							
Aortic insufficiency	14	27		7				7	2
Aortic stenosis	1							1	1
Appendicitis	3		1		1			1	1
Arterio-sclerosis	7	97		5	1		3	1	
Arthritis:									
a. Acute									
b. Chronic	4		2	2					
c. Deformans	13	5		5	5	1	3		
d. Gonorrheal	2		1	1					
Ascites		3							
Athetosis	2		1		1				
Atrophy, optic		4							
Albinism		1							
Auto-intoxication	4		3					1	
Bronchiectasis	1	2		1					
Bronchitis:									
a. Acute	13	3	10	3			2		
b. Chronic	4	13		2			3	1	
Calcification, thyroid		1							
Carcinoma:									
a. Breast	2							1	
b. Cerv. glands									
c. Gall bladder	1							1	
d. Lungs	1							1	

TABLE I—*Continued.*

MEDICAL DISEASES TREATED, JANUARY 1, 1911, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
e. Oesophagus	1							1	1
f. Pelvic perit. glands									
g. Prostate							1		
h. Rectum	1				1				
i. Stomach	5	1			2			3	2
j. Tonsil	1	1			1				
k. Uterus	1						1	1	1
Cellulitis	1		1						
Charcot's joint	1				1				
Chlorosis	1		1						
Cholelithiasis	1	1	1						
Chorea	2		1					1	1
Cirrhosis of liver	5	4		4			1	1	
Colitis	2			1				1	
Condyloma							1		
Conjunctivitis, chronic		1							
Coryza	2	2	2						
Coxa vara	1			1					
Cirrhosis of lung		1							
Cystitis:									
a. Acute							1		
b. Chronic	2	2		1	1		1		
Debility		3							
Delirium		1							
Delirium tremens	3	1	2					1	
Dementia	4	6			4				
Dementia Præcox	3				3				
Dermatitis									
Dextro-cardia		2							
Diabetes mellitus	6			6					
Diarrhoea	1		1						
Acute dilation, heart	3	2	1					2	
Dilation, aortic arch	1	1						1	
Eczema	3	1	3						
Emphysema	8	17		8			2		
Endocarditis	2			2					
Enteritis	3		1				1	1	
Entero-colitis	17	2	10	1			1	6	1
Epilepsy	3	1		3					
Erysipelas	5		4				2	1	
Febricula	1		1						
Fracture	3	1	1	1	1				

TABLE I—*Continued.*

MEDICAL DISEASES TREATED, JANUARY 1, 1911, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
Furunculosis	1	2	1	....	....	....	....	....	....
Gangrene	....	1	....	....	....	....	....	....	....
Gangrene, traumatic	....	1	....	....	....	....	....	....	....
Gastritis:									
a. Acute	....	1	....	....	....	....	....	1	1
b. Chronic	....	1	1	....	....	....	....	....	....
c. Alcoholic	1	11	....	1	....	....	1	....	....
Glaucoma	....	1	....	....	....	....	....	....	....
Goitre:									
a. Exopthalmic	....	....	....	....	....	....	....	....	....
b. Colloid	1	....	....	....	1	....	....	....	....
Gout	4	....	....	4	....	....	....	....	....
Hematemesis	....	1	....	....	....	....	....	....	....
Hemorrhage, cerebral	9	....	....	2	....	....	5	6	....
Hemiplegia	17	24	1	10	1	....	....	5	....
Hernia:									
a. Inguinal	1	4	....	1	....	....	....	....	....
b. Umbilical	....	1	....	....	....	....	....	....	....
Herpes zoster	2	1	2	....	....	....	....	....	....
Hodgkins' Disease	1	....	....	1	....	....	....	....	....
Hydrothorax	....	5	....	....	....	....	....	....	....
Hyperæsthesia	1	....	1	....	....	....	....	....	....
Hyperchlorhydria	1	....	1	....	....	....	....	....	....
Hypertension	....	5	....	....	....	....	....	....	....
Hyperthyroidism	3	1	1	2	....	....	....	....	....
Hysteria	1	1	....	1	....	....	1	....	....
Idiocy	2	3	....	....	1	....	....	1	....
Imbecility	2	1	....	....	2	....	....	....	....
Infantilism	....	3	....	....	....	....	....	....	....
Infarction, pulmonary	....	1	....	....	....	....	....	....	....
Influenza	4	....	4	....	....	....	....	....	....
Laryngitis:									
a. Acute	....	11	....	....	....	....	....	....	....
b. Chronic	....	1	....	....	....	....	....	....	....
Lumbago	3	....	3	....	....	....	....	....	....
Malarial fever:									
a. Aestivo-autumnal	1	1	1	....	....	....	....	....	....
b. Tertian	6	1	6	....	....	....	....	....	....
Malingering	1	....	....	1	....	....	....	....	....
Mediastinitis	....	1	....	....	....	....	....	....	....
Meningitis:									
a. Lepto	1	....	....	....	....	....	....	1	....

TABLE I—*Continued.*

MEDICAL DISEASES TREATED, JANUARY 1, 1911, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
b. Syphilitic	1	....	....	....	1	....	....	....	....
c. Serous	1	....	....	1	....	....	....	....	....
Mitral insufficiency	27	66	....	17	3	....	3	7	....
Mitral stenosis	2	4	....	2	....	....	1	....	....
Mikulicz's Disease	....	1	....	....	....	....	....	....	....
Monoplegia	1	....	....	1	....	....	1	....	....
Morphinism	1	1	....	1	....	....	....	....	....
Myalgia	3	....	2	1	....	....	....	....	....
Myelitis:									
a. Osteomyelitis	1	1	....	....	....	....	....	1	....
Myocardial insufficiency	1	1	....	....	....	....	....	1	....
Myocarditis	15	40	....	8	....	....	2	9	3
Nephiritis:									
a. Acute	4	....	....	....	....	....	....	4	....
b. Chronic	51	52	....	37	....	1	3	12	2
Neuralgia	2	....	1	....	1	....	....	....	....
Neuralgia, intercostal	1	....	1	....	....	....	....	....	....
Neuresthenia	4	....	2	2	....	....	....	....	....
Neuritis:									
a. Arsenical	2	....	2	....	....	....	....	....	....
b. Alcoholic	....	1	....	....	....	....	....	....	....
Obesity	1	1	....	1	....	....	....	....	....
Odema	....	1	....	....	....	....	....	....	....
Otitis media	....	1	....	....	....	....	....	....	....
Panopthalmitis	1	....	....	1	....	....	....	....	....
Paralysis	1	....	....	....	....	....	....	1	....
Paralysis, Landry's	1	....	....	....	....	....	....	1	1
Paralysis, agitans	2	2	....	....	2	....	....	....	....
Paraplegia	3	2	....	1	1	....	1	1	1
Paresis, general	3	1	....	1	2	....	2	....	....
Pediculosis	1	....	1	....	....	....	....	....	....
Plevic inflammatory disease:									
a. Acute	....	....	....	....	....	....	....	....	....
b. Chronic	1	1	....	1	....	....	....	....	....
Pellagra	....	1	....	....	....	....	....	....	....
Pericarditis	....	1	....	....	....	....	....	....	....
Periostitis:									
a. Syphilitic	....	1	....	....	....	....	....	....	....
b. Tuberculous	1	....	1	....	....	....	....	....	....
Peritonitis, chronic	....	1	....	....	....	....	....	....	....
Pes planus	1	....	....	1	....	....	....	....	....
Pharyngitis, acute	1	....	1	....	....	....	....	....	....

TABLE I—*Continued.*

MEDICAL DISEASES TREATED, JANUARY 1, 1911, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
Phlebitis	2		1					1	
Pleurisy:									
a. Thickened pleura		5							
b. Pleurisy with effusion	3	1	3				1		
c. Acute, fibrinous	10	4	8			1			
Pneumonia:									
a. Broncho	26	20	4	1	1			18	2
b. Lobar	10		4				2	6	3
Pneumothorax		1							
Poisoning, lead	2		1	1					
Poliomyelitis	1			1					
Pregnancy	3			1		2			
Proctitis		1							
Prostatitis		2							
Prostate enlargement	1			1					
Psoriasis	3		2	1					
Psychasthenia	1				1				
Psychosis	4	3		2	2				
Psychosis, involutional	1			1					
Pyæmia	1							1	
Pyelitis		1							
Pyonephrosis	1				1				
Relaxation, sacro-illiac	1	1	1						
Rheumatic fever	4		3	1			1		
Rhinophyma	1				1				
Salpingitis	1			1					
Scabies	1	1	1						
Sclerosis	1				1				
a. Amyotrophic lateral	3				1			2	1
b. Combined		1							
Scoliosis		1							
Senility	8	7		6				2	
Splenomegaly		1							
Stomatitis		2							
Strongyloides intestinalis	1		1						
Siriasis	1	1	1						
Tinea sycosis	1		1						
Syphilis:									
a. Primary	6	1	5	1			1		
b. Secondary	4	3	2	1			1	1	
c. Tertiary	9	2	8		1		1		
d. Cerebral	4	1		2	1			1	

TABLE I—*Concluded.*

MEDICAL DISEASES TREATED, JANUARY 1, 1911, TO DECEMBER 31, 1911.

DISEASES TREATED.	Principal Disease.	Complicating Diseases.	Well.	Improved.	Unimproved.	Not Treated.	In Hospital.	Died.	Autopsy.
c. Spinal	1				1				
f. Congenital	1	1	1						
Syringo myelia	1			1					
Tæniasis intestinal	1	2	1					1	
Thrombosis:									
a. Cerebral	5			1				3	1
b. Peripheral		2							
Tonsilitis:									
a. Acute	3	2	3						
b. Chronic	1	5			1				
Tremor, senile	1								
Trichinosis	1		1						
Trichocephalus dispar		1							
Tricuspid insufficiency		1							
Tuberculosis:									
a. Bone	1	1						1	
b. Adenitis	1	1		1					
c. Genito-urinary	1							1	
d. Larynx	1							1	
e. Pulmonary	109	5		25	5	55	5	24	5
Tumor:									
a Cerebral	4		1	1	2		1		
b. Mediastinal	1	1						1	
Typhoid fever	2		2						
Ulcer:									
a. Decubitus		7							
b. Gastric	2		1					1	
c. Varicose		2							
Undescended testicle		1							
Uræmia	8	1						8	1
Urethritis		1							
Uterus, myoma	1	2					1	1	
Vaginitis	1		1						
No diagnosis	7							1	
Total	658	586	150	214	56	60	73	106	34

TABLE II.

AGE OF PATIENTS IN HOSPITALS DURING THE YEAR 1911.

MEDICAL.

AGE.	White Males.	White Females.	Colored Males.	Colored Females.
1 to 10 years	.....	1	.....	2
10 to 20 years	5	7	3	4
20 to 30 years	22	23	17	13
30 to 40 years	34	17	21	13
40 to 50 years	58	21	30	15
50 to 60 years	103	39	15	16
60 to 70 years	107	34	19	20
70 to 80 years	52	29	11	11
80 to 90 years	9	17	3	4

TABLE III.

TOTAL NUMBER OF CASES IN MEDICAL DISPENSARIES.

Males.		Females.	
		September 8 to 30	74
October 18 to 31	121	October 1 to 31	123
November 1 to 30	455	November 1 to 30	125
December 1 to 31	488	December 1 to 31	142
Total	1,064	Total	464

Total, male	1,064
Total, female	464
Total cases	1 528

MUNICIPAL TUBERCULOSIS HOSPITAL

DEATHS DURING 1911.

| Sex and Color. | Number of Patients. | Average Age. | Social Condition. | | | | Condition on Admission. | | | Sputum Examination. | | History of Hemorrhage. | | Average Number of Days in Hospital. | Serious Complications. (Definite Clinically.) | | | |

STATISTICAL REPORT, INSANE DEPARTMENT, BAY VIEW.

TABLE A.

GENERAL STATEMENT FOR THE YEAR ENDING DECEMBER 31, 1911.

	White Males.	White Females.	Colored Males.	Colored Females.	Totals.
Number of patients in hospital, Dec. 31, 1910..	91	153	77	122	443
Number patients admitted.....	123	86	33	32	274
Total number under treatment.....	....	....	....	....	717
Number of patients discharged.....	41	25	8	8	82
Number of patients paroled and not returned..	8	0	....	2	19
Number of patients transferred to Springfield.	40	7	....	....	47
Number of patients transferred to Spring Grove	17	7	....	....	24
Number of patients transferred to Mt. Hope..	1	6	....	....	7
Number of patients escaped.....	3	....	1	....	4
Number of patients died.....	15	10	21	17	63
Total egress during the year.....	125	64	30	27	246
Remaining in hospital, December 31, 1911.....	88	175	81	127	471
Received twice during the year.....	1	1	1	....	3

TABLE B.

ADMISSIONS, DISCHARGES, TRANSFERS, PAROLES UNRETURNED, ESCAPES, DEATHS AND POPULATION BY MONTHS.

MONTHS.	ADMISSIONS.					DISCHARGES.	TRANSFERS.	PAROLES NOT RETURNED.	ESCAPES.	DEATHS.	POPULATION AT THE END OF EACH MONTH.
	WHITE MALES.	WHITE FEMALES.	COLORED MALES.	COLORED FEMALES.	TOTAL.						
January	14	5	1	5	25	2	8	....	....	6	452
February	7	6	3	....	16	2	4	2	....	7	453
March	13	9	3	3	28	7	7	2	....	4	461
April	8	7	5	....	20	6	2	....	....	12	461
May	14	10	5	3	32	7	3	3	....	4	475
June	12	8	3	5	28	5	12	2	....	5	479
July	10	3	1	5	19	8	27	2	1	4	456
August	10	10	2	2	24	12	4	1	1	4	459
September	14	6	4	2	26	6	2	....	....	1	476
October	2	7	....	4	13	6	3	2	....	2	475
November	10	6	3	....	19	4	3	....	....	7	481
December	9	9	3	3	24	17	3	5	2	7	471
Totals	123	86	33	32	274	82	78	19	4	63	....

Average population of the department during the year 1911....441 7-12
Greatest number of patients on any one day (Dec. 22, 1911)...482
Lowest number of patients on any one day (Jan. 3, 1911).....443

TABLE C.

Nativity of Patients Admitted During the Year 1911.

Natives.		Foreigners.	
Baltimore	96	England	7
Maryland	62	Ireland	11
North Carolina	4	Germany	7
Virginia	18	Italy	4
West Virginia	1	Poland	3
New York	1	Russia	19
Delaware	1	Austria	7
Alabama	1	Sweden	1
Michigan	1	Jamaica	1
Ohio	2	Holland	1
New Jersey	1		
Rhode Island	1	Total foreigners	61
Iowa	1	Total natives	213
Washington, D. C.	1		
Maine	1	Grand Total	274
Pensylvania	10		
Unknown	11		
Total	213		

TABLE D.

Ages of Patients Admitted.

Children born in the Institution	2
From 15 to 20 years	23
From 21 to 30 years	77
From 31 to 40 years	75
From 41 to 50 years	32
From 51 to 60 years	33
From 61 to 70 years	9
From 71 to 80 years	13
From 81 to 90 years	6
Unknown	4
Total	274

TABLE E.

Occupation of Patients Admitted During the Year 1911.

Barber	4	Miner	1
Barkeeper	1	Moulder	1
Baker	2	Musician	2
Blacksmith	1	Merchant	1
Bookkeeper	2	Motorman	1
Boiler-maker	3	None	41
Bottle Wrapper	1	Painter	4
Bristle Comber	1	Pharmacist	1
Button-hole Maker	1	Porter	1
Can Maker	1	Potter	1
Carpenter	2	Presser	3
Candy Maker	1	Salesman	1
Clerk	6	Seamstress	5
Collector	1	Sailor	4
Conductor	1	Shipwright	2
Cook	9	Shoemaker	2
Domestic	20	Shirt Ironer	1
Teamster	2	Shirt Maker	1
Engineer	2	Steam-pipe Fitter	1
Factory Hand	2	Storekeeper	1
Farmer	2	Straw-hat Maker	1
Forelady	1	Stevedore	1
Flagman	1	Solicitor	1
Fish Dealer	1	Stenographer	1
Fruit Packer	1	Student	1
Grocer	2	Tailor	11
Gilder	1	Teacher	1
Grain Measurer	1	Telegrapher Operator	2
Housework	37	Tinner	1
Iron worker	1	Trucker	2
Laborer	49	Waiter	2
Laundress	2	Watchman	1
Midwife	1	Unknown	11
Total			274

TABLE F.

SHOWING THE MENTAL CONDITION OF PATIENTS ADMITTED, DISCHARGED, TRANSFERRED AND OF THOSE WHO HAVE DIED DURING THE YEAR 1911.

FORMS OF INSANITY.	Admissions.	Discharges, Transfers and Deaths.					
		Recovered.	Improved.	Unimproved.	Not Insane.	Totals.	Deaths.
Not insane	3	....	....	....	1	1	....
Exhaustion psychoses	1	....	....	....	....	....	1
Postinfection psychoses	3	2	....	....	....	2	....
Acute delirium (Bell's)	1	....	....	....	....	....	1
Myxedematous insanity	1	1	....	....	....	1	....
Paresis	22	....	3	4	....	7	11
Alcoholism (acute)	17	22	....	....	....	22	....
Alcoholism (chronic)	18	....	9	4	....	13	1
Korgsakow's syndrome	1	....	....	....	....	....	1
Morphinism	3	1	....	....	....	1	1
Organic dementia (diffuse lesion)	15	....	4	3	....	7	8
Organic dementia (focal lesion)	9	....	....	2	....	2	9
Senile insanity	20	....	3	3	....	6	12
Pre-senile delusional insanity	12	....	6	1	....	7	1
Involutional melancholia	5	....	1	....	....	1	....
Epileptic insanity	13	....	5	3	....	8	3
Manic depressive insanity (excited type)	16	7	2	3	....	12	....
Manic depressive insanity (mixed type)	1	1	1	....	....	2	....
Manic depressive insanity (depressed type)	2	7	....	1	....	8	1
Neurasthenic insanity	3	2	1	....	....	3	....
Dementia praecox (katatonic type)	24	9	10	6	....	25	6
Dementia praecox (hebephrenic type)	25	....	12	3	....	15	....
Dementia praecox (paranoid type)	29	....	8	10	....	18	1
Paranoia	4	....	....	2	....	2	....
Congenital psychopatic state	3	....	2	....	....	2	....
Imbecility and epilepsy	10	....	4	4	....	8	....
Imbecility	11	....	8	2	....	10	6
Idiocy	2	....	....	....	....	....	....
Total	274	52	79	51	1	183	63

TABLE G.

Causes of Death.

Primary Cause.	Immediate Cause.	No.
Senility	Hypostatic pneumonia	3
Senility	Broncho-pneumonia	0
Senility	Uremia	2
Senile epilepsy	Hypostatic pneumonia	1
Senile epilepsy	Pulmonary œdema	1
Paresis	Hypostatic pneumonia	2
Paresis	Broncho-pneumonia	5
Paresis	Uremia	1
Paresis	Pulmonary œdema	3
Pumonary tuberculosis	Exhaustion	9
Pumonary tuberculosis	Acute cardiac dilation	1
Tubercular peritonitis	Exhaustion	1
Interstitial nephritis	Pulmonary œdema	2
Interstitial nephritis	Acute cardiac dilation	1
Parenchymatous nephritis	Pulmonary œdema	2
Parenchymatous nephritis	Acute cardiac dilation	1
General arterio-sclerosis	Broncho-pneumonia	4
General arterio-sclerosis	Apoplexy	1
General arterio-sclerosis	Uremia	1
General arterio-sclerosis	Cerebral softening	1
Syphilitic arteritis	Apoplexy	1
Myocarditis	Acute cardiac dilation	2
Myocarditis plus epilepsy	Acute cardiac dilation	1
Myo-endocarditis	Acute cardiac dilation	1
Myo-endocarditis and chorea	Acute cardiac dilation	1
Otitis media	Meningitis	1
Otitis media and paresis	Meningitis	1
Epileptic status	Pulmonary œdema	1
Typhoid fever	Peritonitis	1
Pregnancy	Intra-uterine hemorrhage	1
Katatonic stupor	Broncho-pneumonia	1
Chronic alcoholism	Pachymeningitis hemorrhagica	1
Lobar-pneumonia	Acute cardiac dilation	1
Acute delirium (Bell's)	Exhaustion	1
Total		63

TABLE H.

TIME OF TREATMENT OF PATIENTS DISCHARGED OR TRANSFERRED DURING THE YEAR 1911.

	White Males.	White Females.	Colored Males.	Colored Females.	Totals.
Over 1 and less than 3 months	58	26	5	3	93
Over 3 and less than 6 months	13	11	2	2	28
6 to 12 months	16	13	2	1	32
1 to 2 years	11	3	....	3	17
2 to 4 years	5	2	....	....	7
4 to 6 years	2	....	....	1	3
6 to 8 years	3	....	....	....	3
Total	108	55	9	10	183

TABLE I.

TIME OF TREATMENT OF PATIENTS WHO DIED DURING THE YEAR 1911.

	White Males.	White Females.	Colored Males.	Colored Females.	Totals.
One month or less	2	2	3	3	10
Between 1 and 3 months	2	1	3	1	7
Between 3 and 6 months	2	....	2	1	5
Between 6 and 12 months	2	3	4	3	12
Between 1 and 2 years	7	....	....	3	10
Between 2 and 4 years	....	....	2	2	4
Between 4 and 6 years	....	2	3	1	6
Between 6 and 8 years	....	1	1	1	3
Between 8 and 10 years	....	....	1	....	1
Between 10 and 12 years	....	1	2	2	5
Total	15	10	21	17	63

TABLE 7.

Age of Patients Who Died During the Year 1911.

	White Males.	White Females.	Colored Males.	Colored Females.	Totals.
From 15 to 30 years	....	....	7	3	10
From 31 to 40 years	2	....	3	5	10
From 41 to 50 years	2	3	3	5	13
From 51 to 60 years	5	1	5	1	12
From 61 to 70 years	1	1	1	2	5
From 71 to 80 years	2	3	2	....	7
From 81 to 90 years	2	3	....	1	6
Total	....	....	....	....	63

OFFICIAL STAFF

NATHANIEL G. GRASTY.....*Secretary*
T. JAMES HUNTER.....*Visitor-in-Chief*
GEORGE SCHUSTER.....*Chief Clerk*
MRS. EMILY DUVALL.....*Clerk and Visitor*
MISS ELIZABETH S. WALSH.....*Visitor*
MISS MARY O. SIMPSON.....*Visitor*
MRS. LURA B. HEPBURN.....*Visitor*
MISS MARY MAYCUMBER.....*Clerk and Stenographer*

MEDICAL AGENCIES

HERMAN BRULLE, M. D.....*Physician-in-Charge*
H. D. MCCARTY, M. D.....*Physician-in-Charge*
ELLIOTT H. HUTCHINS, M. D.....*Physician-in-Charge*
JENNIE N. BROWNE, M. D.....*Assistant Physician*
MARY COOK WILLIS, M. D.....*Assistant Physician*
BERTHA TAPMAN, M. D.....*Assistant Physician*

BAY VIEW

OFFICIAL STAFF

LAMAR HOLLYDAY.....*Superintendent*
DAWSON E. HAMMOND.....*Purveyor*
WILLIAM T. SLOTHOWER.....*Clerk*
CHARLES H. MINNICK.....*Clerk*
GUS NEWMAN.....*Supervisor*
WILLIAM H. HANSSEN.....*Assistant Supervisor*
THOMAS J. V. MORRIS, Ph.G.....*Pharmacist*
JAMES J. FARRELL.....*Engineer*
CLAUD T. FARLEY.....*Assistant Engineer*
*CAPITOLA B. THOMPSON.....*Matron*
MARY E. LITTLE.....*Matron*
*GERTRUDE WARNER.....*Assistant Matron*
LOGAN CAREY.....*Assistant Matron*
JOHN B. HUNTER.....*Farmer*
THOMAS CONNOR.....*Messenger*
MARY MERCER.....*Sewing Teacher*
*NORAH C. HEATH.....*Laundress*
MAMIE KABESKA.....*Laundress*

*Resigned.

BAY VIEW HOSPITAL

MEDICAL AND SURGICAL STAFF

Physician-in-Chief:
THOMAS R. BOGGS, M. D.

Surgeon-in-Chief:
ARTHUR M. SHIPLEY, M. D.

Resident Physician:
†CLAUD SMINK, M. D. WALTER A. BAETJER, M. D.

Resident Surgeon:
‡L. E. BRANDSFORD.

Assistant Resident Physicians:
†GEORGE C. COULBOURNE, M. D.
H. A. D. CODDINGTON, M. D.
DAVID M. DAVIS, M. D.
†HERBERT FOSTER, M. D.
HIRAM FRIED, M. D.
BENJ. S. KLINE, M. D.
PAUL P. MCCAIN, M. D.
ROY R. SNOWDEN, M. D.
*DWIGHT G. RIVERS, M. D.
*J. E. THOMAS, M. D.
†JOHN H. VON DREELE, M. D.

Superintendent of Nurses:
*EMMA J. DALY, R. N. ANNA C. TURFORD, R. N.

Consulting Physicians:

Opthalmologist:
JAMES J. MILLS, M. D.

Laryngologist:
FRANK DYER SANGER, M. D.

Otologist:
WILLIAM TARUN, M. D.

Neurologist:
HENRY M. THOMAS, M. D.

Gynecologists:
EDWARD H. RICHARDSON, M. D. HUGH W. BRENT, M. D.

Urologist:
GIDEON M. TIMBERLAKE, M. D. JOHN T. GERHATY, M. D.

Dermeithologist:
E. R. STROBEL, M. D.

Pediatrician:
JOHN RURAH, M. D.

Pathologist:
MILTON C. WINTERNITZ, M. D.

*Resigned.
†Time of service expired June 15, 1911.
‡Left without notice.

TUBERCULOSIS HOSPITAL

Physician-in-Chief:

GORDON WILSON, M. D.

Resident Physician:

*WILLIAM V. PARRAMORE, M. D. RAYMOND G. HUSSEY, M. D

Assistant Resident Physician:

ISADORE J. HIRSCHMAN, M. D. †LOUIS RUBIN, M. D.
WILLIAM C. MARETT, M. D. *JAMES E. TALBOTT, M. D.

Supervising Nurse:

MAY ISABELL HEISER. †E. H. HOEPPNER.

RECEPTION HOSPITAL FOR INSANE

Physician-in-Chief:

HARRY D. PURDUM, M. D.

Resident Physician:

BURT ASPER, M. D.

Assistant Resident Physicians:

‡H. L. DOVEY, M. D. *JOHN G. SCHWEINSBERG, M. D.
*JOHN G. RUNKEL, M. D.

Supervising Nurse:

†MARY U. SHIFFLETT, †N E. FORNEY,
MARIE M. BARRON.

Supervisor:

BEAUREGARD BEATTY.

Psychiatrists:

HENRY J. BERKLEY, M. D.

---

‡Left without notice.
†Resigned.
*Time of service expired June 15, 1911

THE POLICY REGARDING HOSPITALS

After careful consideration it has been decided to adhere to the policy of continuing to contract with a few hospitals rather than to have city patients scattered in numerous institutions. Thus the hospitals can be inspected frequently, and every city patient seen at each visit. To the selection of private hospitals for city patients the Supervisors have given much thought, and an experience of several years demonstrates that it is wise to concentrate the city patients in a few of the best equipped institutions.

* * *

The number of private hospitals aided or made use of by the city in 1885 was only two; in 1887, four; in 1889, five; in 1891, six; in 1895, eight; in 1897, nine, and in 1900 it was twelve, with a thirteenth looking for its share of city patients. Ten of these twelve were general hospitals, and in four of them the maximum number of city patients amounted to only fifty. In one locality three were within a few squares of each other.

* * *

Such multiplication in the number of institutions used by the city was not the result of an increase in the needs of the city for its sick charges. On the contrary, this scattering of patients was not necessary, was not economical, and rendered more difficult the supervision imposed on the Supervisors by the organic law of the city. Obviously some system, based on a definite principle, had to be adopted for the selection of private hospitals used by the city.

* * *

After careful consideration the Supervisors determined to use six general hospitals only, all of which must conform to a reasonable standard of housing, care and treatment, and no two of which were to be in the same district of the city. This action was based on the principle of securing the best available service for the city charges with the best supervision. Different hospitals may be chosen in future if they can show that they give better housing, care and treatment than those now in use in their locality.

* * *

If necessary, the Supervisors will call on disinterested hospital experts for advice. We are convinced that this policy in limiting the

number of private hospitals used by the city to a few selected ones is absolutely necessary if the city is to continue the use of private institutions.

* * *

Hospitals are visited regularly, twice weekly. Cases needing special investigation have additional visits paid them, both in the hospital and at their homes.

* * *

Hospitals are permitted to receive city patients who present themselves directly. The examining physician decides whether the man is in need of immediate attention, and if so he is expected to make diligent inquiry into the financial status of the patient. Daily reports are sent to our office from the hospitals, and a brief history of each patient is given. Every case is also looked into by our hospital clerks, and if they are not satisfied that he is a legitimate city charge the patient's home and surroundings are visited, and only after a careful investigation is the usual permit issued to the hospital giving it authority to place the name of the patient on the city's list. Many persons, however, apply directly to our offices, and if the trouble is obscure a physician's certificate is required, but all cases unmistakably sick are handled immediately, and sent to nearest hospital without delay. The certificate of a physician and all other preliminaries are suspended until the patient is quietly resting in bed.

* * *

Sick persons who cannot be attended in their homes and who are unable to pay hospital fees are, upon our request to the hospital, given free ambulance service. The hospitals generally co-operate with the Department and rarely ask for a city permit for anyone who can pay a single dollar per week for treatment. Most of the hospitals do their share of real charity work.

* * *

Ordinarily the regular patients, which are classed as "indoor," are carried on the city list from one day to three months. In exceptional cases it is necessary to carry patients a much longer time. In the hospitals which give only special treatment a time limit cannot be prescribed.

* * *

Only one day is allowed for each "out-patient." "Out-patients" are not ordinary dispensary cases, but emergency cases which need not

remain in the hospital. They are usually brought in by police at an hour when the dispensary is closed.

* * *

Accident or patrol cases are always permitted to be entered on the city's list, but in many instances when the cases are followed up we have succeeded in having refunded to the city a sum equal to that paid out for their care. Several accident cases involving law suits have reimbursed the city to the extent of the city's hospital bill from their damage claims.

* * *

Non-residents stranded here without friends or money, who are overcome by some acute trouble or by accident, have to be provided for. A number are found too ill to turn away from the hospital, but the Department is consulted before placing any non-residents on the city's list.

* * *

Aliens, discovered in hospitals, suffering with disease which was probably contracted before coming to this country, are reported to the United States Immigrant Commissioner for deportation. Acute troubles, which are likely to attack anyone at any time or place, are allowed to pass if the patient is ordinarily able-bodied and young enough to look out for himself upon recovery.

* * *

About 700 persons are handled each month in the several hospitals with which the city contracts. About one-half of this number enter as new patients, the other half are carried over. The new ones are rigidly investigated, the old ones are carefully watched.

* * *

The bookkeeping is an item in this work. A history of each patient, based on data sent by the hospital to the Supervisors is entered upon a numbered permit and stub, from which the permit to the hospital is detached and mailed at once to the hospital provisionally accepting the patient as a city charge, subject to further investigation. Indexes are carefully kept with attached stub number, so that any history can be found in a few moments. Hospital bills are rendered monthly, and must be checked off and balanced up to correspond with the records in this office, and it is no slight task to see each month that each of the 700 individuals gets his proper allowance of days to be paid for, these numbers ranging from one day only to the entire month.

THE POLICY WITH DISPENSARIES

The policy of the Supervisors of City Charities is to establish medical agencies in different parts of the city only when it becomes evident that a certain section of the city has grown to such proportions that the existing dispensaries are unable to handle it properly. Under these circumstances the Supervisors make a study of the urgency of the situation, with a view to establishing a city medical agency in the neighborhood. These agencies in no way discourage the dispensary work already being done, but are simply prepared to handle all the city cases that cannot be taken care of at the nearest dispensary.

THE AIM OF A DISPENSARY

(1) The function of the dispensary should be to provide, free of charge, at the dispensary *or in the homes,* in addition to the necessary drugs, such medical attention as persons able to pay physicians are accustomed to obtain from good family physicians.

* * *

(2) A sufficient force of physicians must be attached to a dispensary to insure time for reasonable diagnosis and treatment there, and to make all necessary visits to the homes.

* * *

(3) Visiting in the homes of persons who are too ill to go to the dispensary, and who should not or cannot be sent to a hospital, is an essential part of dispensary work, and in no case must a patient be treated without being seen.

* * *

(4) The physicians must be graduates, in good standing, of the medical schools belonging to the American Medical College Association and must be approved by the Supervisors of City Charities.

* * *

(5) There must be a "waiting room" and also a room for the examination and treatment of patients in private, and all rooms should be kept neat and clean.

* * *

(6) During the hours when women and children are treated a competent woman must be in attendance.

* * *

(7) The understanding is that the only sick persons for whom medical attendance is to be provided by the city are those who are unable to provide it for themselves, and who are not cared for by private charity or by medical agencies not used by the city.

COMPENDIUM

HOW TO PROCEED SHOULD SOME ACQUAINTANCE OF YOURS BE OVERTAKEN BY POVERTY, SICKNESS AND DISTRESS : : : : : :

USEFUL INFORMATION

ANNUAL REPORT FOR 1911

SUPERVISORS OF CITY CHARITIES

BALTIMORE, MARYLAND

HOW TO MAKE USE OF THE DEPARTMENT OF CHARITIES

About thirty-five thousand persons passed through the Department of Charities during the year. This means that one out of every seventeen persons in the City of Baltimore made use of this Department. It is, therefore, important that the public at large be informed of the scope of its activities. It is desirable that the public understand not only the functions of this Department in helping those who are in distress, but that it should also know where to turn when charitable help must be sought elsewhere. The following key will help those who are in search of such information:

HOSPITALS.

Hospital treatment for those who cannot afford to pay for it.

Any person ill and without means, needing hospital treatment, by applying at our branch offices in the City Hall Annex, may be sent to any of the following hospitals without cost:

Mercy Hospital, Calvert and Saratoga streets

University Hospital, Lombard and Greene streets.

The Maryland General Hospital, Linden avenue and Madison street.

St. Joseph's Hospital, Caroline and Hoffman streets.

The Maryland Homeopathic Hospital, 1122 North Mount street.

St. Agnes' Hospital, Wilkens avenue extended.

If too ill to apply to the office, a friend should call and make arrangements; or, in an emergency, any of the above hospitals will receive him, provided the city beds are not all filled. It is safer, however, to telephone or get a permit from our office, for the hospital clerk can inform the applicant instantly which hospitals have vacant city beds, thus avoiding delay or confusion.

Sick non-residents stranded here without friends or money.

Persons overcome by some acute illness or by an accident are provided for and are never refused treatment.

Supervision over hospitals and the visiting of city patients.

Hospitals are visited twice weekly by trained experts. Each patient is seen separately and interviewed.

Treatment of contagious diseases, such as scarlet fever, diphtheria, smallpox, measles, etc.

These are not cared for by this Department. Contagious diseases are looked after by the Health Department's offices in the City Hall Annex. Phone the Health Department in all cases.

Special treatment for children who are crippled and deformed.

Yes. Such children are sent to a special hospital, devoted exclusively to the treatment of such cases. Our City Hall Annex offices will arrange the details.

Persons suffering with tuberculosis.

The very poor who are suffering with tuberculosis, if unable to secure treatment elsewhere, by applying to the City Hall Annex offices, may be given a permit to the Tuberculosis Hospital, located one-quarter of a mile beyond Bay View. The hospital accommodates 160 patients.

A few city beds are also to be had at The Hebrew Hospital for Consumptives located at Reisterstown, Hospital for Consumptives at Eudowood and Maryland State Sanatarium, Blue Ridge Mountains. Application for these can be made at City Hall Annex Office, where a "waiting list" is kept.

DISPENSARIES.

Medical advice where hospital treatment is not required or is not possible.

If unable to pay a physician, and in need of medical advice, treatment and medicine free of charge may be secured at a dispensary or medical agency.

If such a patient is too ill to visit one of the dispensaries or medical agencies, and the case is not properly one for a hospital, by notifying the physician at any of the dispensaries or agencies, or by telephoning the offices in the Court House Building, a physician will be sent to the patient's home. This service will be secured free of charge, but persons whom the physicians or the Department feel are able to pay for medicine or the doctor will not be treated at the city's expense.

Location of dispensaries or agencies.

The following are the locations:

Eastern Dispensary, Baltimore street and Central avenue.

Northeastern Dispensary, 1224 East Monument street.

City Medical Agency, 2242 Pennsylvania avenue.

City Medical Agency, 1418 Light street.

City Medical Agency, 1105 McCulloh street.

Baltimore General Dispensary, 651 West Lexington street.

Eye, Ear and Throat Dispensary, 625 West Franklin street.

Persons in other localities of the city by telephoning the offices in the Court House will be directed to dispensaries in their vicinity where they may be treated free of charge.

Private medical examinations in the case of women.

Women are amply protected. Not only is there privacy, but a competent female attendant will be present.

Nursing in the home where there is not sufficient means to employ a trained nurse.

The District Nurses' Association, 1123 Madison avenue, have a corps of seven trained nurses who hold themselves in readiness from 9 A. M. to 5 P. M. daily for calls of this kind and are qualified to render any service to the sick in their homes. A nominal charge of ten cents (nurse's car fare) is asked. Application for nurse's services should be made to Miss Mary Lent, 1123 Madison avenue, who is in telephone communication with the seven districts at 9 and 1 o'clock daily.

Home nursing for patients suffering with tuberculosis.

The Health Department now supports fourteen visiting nurses, whose sole business it is to assist in the care and nursing of tuberculous patients in their homes. Calls should be sent to the Health Department.

Agencies for the care of sick infants, particularly during the summer months.

The Thomas Wilson Sanatarium, beautifully situated on the Western Maryland Railroad, offers a home for such children during the summer, and has a corps of nurses in its various districts in the city who will visit in the home and instruct mothers in the care of their infants, preparation of the milk, etc. In connection with this there is a Babies' Milk Fund Association from which mothers can get the Walker Gordon milk most carefully prepared for sick babies at a nominal cost. Miss Anna French, Johns Hopkins Nurses' Club, 219½ East North avenue, is in charge of all this work.

THE INSANE.

Method of procedure without publicity in cases of persons developing insanity.

In cases of mental trouble or insanity, the patient's relatives must procure two insanity certificates from Room 241 Court House, or elsewhere, and after having them signed by two doctors, bring these two certificates to the Department, in the Court House, Room 241. An "admit" may then be procured for the patient to enter a hospital for the insane. The office will mail the insanity certificates if requested to do so.

Waiting list for the city's beds at Spring Grove, Mt. Hope and Springfield Hospitals. Method of admission.

When the hospitals are filled, a waiting list is kept in our offices and the patient's name entered and kept in its place until there is a vacant bed; then the first on the list is given the vacant bed.

Cost of treatment.

The spirit of the Charter requires the patient's relatives to pay for his treatment at the rate of $12.50 per month, unless they are too poor to do so. Then the Department will take up the case and supplement whatever amount that it feels the relatives are unable to raise. But it should be remembered that the citizens of Baltimore are unwilling to be taxed for persons asking aid until such applicants have first exhausted their own resources. The city is to be applied to only as the last resource.

Insane hospitals used by the city.

Mt. Hope Retreat, Mt. Hope, Md.; Spring Grove, Catonsville, Md.; Springfield, Sykesville, Md.; Bay View, Baltimore county, Md. Treatment in these institutions is humane, and far better than patients receive in their own homes.

Visits of relatives.

The relatives are encouraged to visit the patient unless the physician in charge feels it is injurious to the patient.

Vacancies in city beds.

If a patient dies or is cured there is a vacant bed; or if for any reason the relatives move a patient, his removal causes a vacancy, which is filled by the first patient on the list. The relatives are notified immediately of a vacancy.

Number of beds controlled by the city at these institutions.

Mt. Hope, 250 beds; Spring Grove, 260 beds; Springfield, 670 beds.

Cases which are in need of immediate treatment.

Call at our offices in the Court House for further advice.

FEEBLE-MINDED CHILDREN.

Provision for feeble-minded children.

The State of Maryland has an institution at Owings' Mills for feeble-minded children. This Department does not take feeble-minded children. Applications should be made to the Maryland School for the Feeble-Minded at Owings' Mills, Md

EPILEPTICS.

Provision for epileptics whose minds have not become impaired.

The State has made no provision for this class of epileptics. The Silver Cross Home at Port Deposit can accommodate about twenty females. Write to the Superintendent direct.

Such epileptics, if without homes, will be received at Bay View Asylum. Apply to the City Hall Annex offices for a permit.

BLIND, DEAF AND DUMB.

Provision for blind, deaf and dumb children.

The white deaf mutes can find a home at St. Francis Xavier School, 903 McCulloh street. The white blind from seven to eighteen years of age, at the Maryland School for Blind, 1205 North Charles street. Mr. Bledsoe, Superintendent. The white deaf and dumb, at the Maryland School for Deaf and Dumb, Frederick, Md., Superintendent, Charles W. Ely. The colored blind and deaf mutes may find a home at the Maryland School for Colored Blind and Deaf, Parksville, Baltimore county, Md. Apply to Mr. Lyman Steed, Parksville, Md.

CHILDREN.

Provision for orphan or dependent children.

The friends of a homeless and destitute child should call at the offices in the Court House, Room 241, and give all the information possible regarding the case. After the Department learns from various sources what under the peculiar conditions is wisest to be done, action will be taken.

Relations with the Juvenile Court in the handling of cases.

If the city assumes the care of the child, the Department is usually compelled to bring the case into the Juvenile Court, but this is not always necessary.

Placing of children in private families.

The Department makes a specialty of placing children in good free private homes, where many of them are adopted and become useful citizens in the community.

Institutions which the city contracts with in reference to children.

The city contracts with the following children's institutions:

St. Vincent's Infant Asylum, Division street and Lafayette avenue.

Nursery and Child's Hospital, Franklin and Schroeder streets.

St. Elizabeth's Home, 317 St. Paul street.

St. Mary's Home for Little Colored Boys, Presstman street and Vincent alley.

Maryland Home for Friendless Colored Children, 1624 Druid Hill avenue.

Home of the Friendless, Druid Hill and Lafayette avenues.

St. Vincent's Male Orphan Asylum, Govanstown.

St. Mary's Female Orphan Asylum, Roland Park.

St. Joseph's School of Industry, Charles and Twenty-eighth streets.

CITY INFIRMARY.

Provision for the homeless, aged and infirm.

The aged and infirm, if without a home and unable to enter one of the private aged men and women's homes located in the city, should apply to our branch offices, City Hall Annex. A permit may be secured which will enable the applicant to enter Bay View and be provided for permanently.

No criminals in Bay View.

Dissolute or able-bodied persons are not admitted by law into this institution. It is for the aged and infirm only.

Attention and food at Bay View Asylum.

Absolutely clean linen, plain and abundant food and good nursing is assured.

Transportation of the infirm to Bay View.

The police patrol, the private ambulances, and our own Bay View ambulance, are all engaged in conveying sick and aged people to Bay View, all showing a spirit of cooperation in the great work of helping suffering humanity.

Visits of friends allowed to persons in Bay View Asylum.

By calling at our offices in the City Hall Annex, the Bay View clerk will issue a permit to the friends of such persons.

HOMELESS MEN.

Able-bodied men requiring food and a night's shelter.

If possessed of the right feeling, a man does not want to beg, and respectable homeless men out of employment will insist on working for what is given them. Any able-bodied man needing a meal or shelter for the night or several nights will be looked after at 305 South Sharp street. Such persons are expected to cut or saw wood for the equivalent of their meals and lodging.

Where there is physical inability to work.

If the physician pronounces the man unable to do the work, he may be kept over night and next morning be given shelter at Bay View.

Comfortable lodging quarters assured.

The Department is responsible for the absolute cleanliness of the beds and the entire building.

Street begging for a meal or night's lodging unjustified.

No one need beg, and a man breaks the law and is liable to arrest if he begs on the streets of Baltimore. This institution, however, should be availed of only as a temporary shelter until the man can look around and secure employment; but he will be kindly received and sheltered and given meals at all times, provided he is not drunk.

HOMELESS WOMEN.

Provision for temporary shelter for respectable women.

At Bay View, and in a few cases elsewhere, or the matron at the police station might be applied to; but it is usually better for women

to apply to the Federated Charities, St. Paul and Pleasant streets.

MOTHER AND ILLEGITIMATE CHILD.

Provision to keep a mother and her illegitimate infant together and provide a home for both.

The Florence Crittenden Mission, 837 Hollins street, was incorporated for just this work; to encourage the mother-love, teach her how to care for her infant, and by assuming this responsibility to try redeem her past life and former mistakes. Consult also the Exeter Street Home, and the Home for Mothers and Infants at 1404 East Chase street, where a limited number can be cared for. Consult 15 East Pleasant street, Children's Aid Society.

STRANDED PERSONS WHO ARE NON-RESIDENTS.

Provisions for strangers stranded in Baltimore.

Strangers stranded in the city, if without means, may secure transportation to their homes by applying at our branch offices, City Hall Annex.

Strangers' statements verified.

The real home of the applicant must be verified by correspondence or telegraph, and the clerks are required to use the utmost care in these cases.

Temporary care pending investigation.

Many of the subjects for transportation are housed at Bay View pending investigation. Some are provided for elsewhere, especially women.

Provision for homeless and friendless boys.

There are two agencies for cases of this kind, viz.: Boys' Home, Calvert and Pleasant streets, and St. James' Home for Boys, 301 North High street, where the boy would be cared for and employment found for him.

Runaway boys.

Boys running away from their homes, when tired of the novelty, are almost sure to apply for transportation back home. If this were furnished, the boy on his return would pose and be looked upon "as a hero," especially when it was learned by his companions how easily he could be sent back from another city should he become homesick. The whole country would be filled with boys sightseeing until the funds were exhausted, and the city would be called on to furnish transportation back to their homes. Such boys, if their parents are unwilling to send the amount of transportation, are liable to be arrested by the police department and committed to an industrial school.

Railroad transportation for tramps and drunks.

Transportation is never furnished tramps, and rarely for the drunks, residents of other cities who spend all their earnings in dissipation and coolly ask to be returned to their homes. If their friends will not look out for their return, the police magistrate is liable to commit them to the House of Correction.

Persons are never brought by this Department from distant points back to Baltimore at the city's expense. There is no fund available for such a purpose.

LANDLORD AND TENANT.

Furniture not liable for unpaid rent.

Unless agreed in writing to the effect, the furniture cannot be legally seized.

The landlord's rights.

If there is no written agreement, the landlord can give five days' notice to vacate the premises, and, if not complied with at the expiration of five days, the furniture may be put out into the street.

Legal costs to tenant if rent is paid before expiration of five days of grace.

Ninety cents additional must be paid for cost.

Furniture sold for rent if there is a written agreement to that effect.

This may be legally done if there is a written agreement to this effect.

Provision made by the city for the burial of the poor, who are without means.

The Health Department, City Hall Annex, Gay street, can be called upon and will take charge of the body free of charge.

The difference between the Supervisors of City Charities and the Charity Organization Society, and the State Board of Aid and Charities.

The Board of Supervisors of City Charities has no official connection with any charitable society in Baltimore. It is one of the departments of the municipal government of the City of Baltimore, and is prepared to handle cases of persons needing care or treatment in institutions.

The Charity Organization Society is a private association, supported by private subscriptions. It deals largely with persons needing food, fuel, clothing, employment, and suggests and co-operates with the proper agencies for the relief of same.

The State Board of Aid and Charities represents the State of Maryland. The business of the Board is to visit institutions, investigate charitable associations, etc., with a view to the annual appropriations granted by the State. The Board should familiarize itself with conditions, in order to present its recommendations to the Legislature intelligently.

Persons in need of fuel, money, clothing, etc.

Persons in need of fuel, money, food, clothing or employment should **not** apply to this department. The city has no fund available for such needs. The following private charitable associations make a specialty in dealing with these problems:

The Federated Charities, No. 15 E. Pleasant street.

The Hebrew Benevolent Society, 411 West Fayette street.

St. Vincent de Paul Society, 828-833 Law Building.

Association for the Improvement of the Condition of the Poor, 15 E. Pleasant street.

The Charity Organization Society, with its various branches.

The Young Ladies' Hebrew Benevolent Society, Philanthrophy Hall.

The German Society of Maryland, 215 Courtland street.

ANNUAL REPORT

OF THE

Superintendent of Lamps and Lighting

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911.

BALTIMORE
MEYER & THALHEIMER
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RULES FOR THE GOVERNMENT OF EMPLOYEES OF THIS DEPARTMENT

1. District Superintendents will patrol the district to which each may be assigned, night and morning, and maintain a thorough and practical supervision over the street lighting system of the city, in order that the very best service may be obtained at all times. They must report all defective street lights in their respective districts and fully explain in their reports the cause of such defects.

2. They must see that the lanterns, globes, bottom glass, street signs and other lamp fixtures are properly adjusted and are kept thoroughly cleaned at all times, and must report any failure on the part of the contractors or their employees to properly perform this work.

3. They must see that the street lamps are lighted each night and extinguished each morning strictly in accordance with the official schedule of lighting issued by this Department, and report any failure of the lamplighters to comply with this requirement.

4. They must thoroughly acquaint themselves with each and every condition in their respective districts bearing upon the work of this Department, in connection with the lighting service, and must make such recommendations as in their judgment will improve the street lighting system.

5. They must keep an accurate account of the number and location of all gas and naphtha street lamps and unused lamp posts in their respective districts, and be prepared to furnish the Superintendent of Lamps and Lighting information as to the exact location of each lamp and unused lamp post.

6. When new street lamps are ordered by the Superintendent of Lamps and Lighting, the District Superintendents must see that they are placed in the exact location as ordered, and that the pavement at the base of each post is put in proper condition and report in writing to the Department when these lamps go into service. Lamps should not be placed against trees, telegraph or telephone poles.

7. They must keep an accurate account of all street lighting equipment, and must specify that portion of it that belongs to the city and

that owned by the contractors. They must report to the Department all broken or wrecked lamp posts and fixtures found in their respective districts, and see that all needed repairs are promptly made by the contractors, including the repair of the pavement at the base of all posts.

8. They must see that all the street signs which are attached to houses in the electric light districts of the city are properly adjusted, and must report to the Department any such signs that may be found hanging or out of place—giving the location where such signs are to be found.

They must report to the Department the necessity for street signs in such localities of their respective districts, where, in their judgment, the convenience of the public may demand, and must specify whether for street lamps, houses or unused lamp posts, giving the location where such signs are to be placed.

9. The District Superintendents will be required to make a lamp-to-lamp inspection every three months during the year, and must report all defects found and all repairs needed.

The method of this inspection must be conducted in the day time, and with the assistance of the lamplighters.

The District Superintendents, with the assistance of the lamplighters, will examine, in the most thorough manner, each street lamp, and must carefully note and report every defect found in connection with the lantern, burner and lamp post. They must note and report every lamp post found to be leaning, and report any defects found in the pavement at the base of each lamp post. They must also report the necessity for painting the lamp posts and fixtures.

After this inspection has been made, and the reports, setting forth the necessary repairs to be done, submitted to the Superintendent of Lamps and Lighting, the District Superintendents must follow up this work, and see that all repairs are made by the contractor in a manner satisfactory to the Department.

10. They must acquaint themselves with and keep a correct record of the location of all stores dealing in and selling at retail, coal oil, in their respective districts, and must collect at least three samples of coal oil each day from different dealers. They must also collect samples of oil from the delivery wagons of all companies and persons engaged in selling oil to local dealers.

11. They will be required to take monthly statements or readings of gas and electric meters located in all municipal buildings, markets, etc.

12. Any District Superintendent who may be found guilty of any irregularities in connection with the collection of samples of oil will be promptly dismissed.

13. District Superintendents must report to the Department each morning not later than 9.30 o'clock.

14. Any District Superintendent who fails to comply with these rules in any particular will be dismissed.

INSPECTOR OF ILLUMINATING OIL.

The Inspector of Illuminating Oil will make all inspections of illuminating oil strictly as required by the provisions of the law bearing upon the subject.

He must inspect at least twenty (20) samples of oil daily.

He must keep a correct record of all tests of oil.

He must also perform such other duties as may be ordered from time to time by the Superintendent of Lamps and Lighting.

CHIEF INSPECTOR.

The Chief Inspector must keep general supervision of the gas, naphtha and electric arc light service throughout the city, ascertain the cause of all defective lights, and where it is within his power to do so he must correct the cause of the trouble; otherwise he must call the contractor's attention to the existing defects that the same may be adjusted promptly.

He must recommend any alterations or repairs of the lamps which he may find to be necessary for the improvement of the general lighting service. He must superintend the erection of all additional electric, gas and naphtha lamps which may be ordered from time to time throughout the city, and also superintend all alterations, repairs and readjustments of such lamps and equipment, and must report to the Department any failure on the part of the contractors or their employees to execute the work properly.

He must perform any other service that may be ordered from time to time by the Superintendent of Lamps and Lighting.

GENERAL RULES FOR THE GOVERNMENT OF ALL EMPLOYEES OF THE DEPARTMENT

1. Any employee of this Department who shall solicit contributions of money or material of any of the contractors doing work for the city through this Department, or from any other person employed by the contractors, either as a loan or otherwise, will be dismissed at once.

2. Any employee found under the influence of liquor, or who may be negligent or insubordinate, or in any way interfering with or obstructing the work of this Department, shall be suspended pending an investigation.

3. Any employee who shall absent himself from work without good and sufficient cause will be dismissed.

4. Any employee who shall fail to comply with any of the rules which apply to his particular work will be dismissed.

5. Employees must not, under any circumstances, entertain visitors or friends during office hours on other than business connected with the Department.

6. Any employee who shall make a misstatement, or who shall falsify his report as to his particular work, will be dismissed.

7. Employees must treat all persons having business with the Department with courtesy, and must conduct themselves with proper decorum at all times.

8. Employees must carefully read the foregoing rules and familiarize themselves with them.

REPORT OF THE SUPERINTENDENT

OFFICE OF

SUPERINTENDENT OF LAMPS AND LIGHTING,

CITY HALL.

BALTIMORE, January 1, 1912.

To the Honorable the Mayor and City Council of Baltimore.

GENTLEMEN—As required by law, I have the honor to submit for your consideration this, my annual, report showing the condition of the street lighting service and the work performed by the Department during the year ending December 31, 1911.

NUMBER OF STREET LAMPS IN SERVICE.

There are in service at the present time 11,686 street lamps of all classes, of which number 8,054 are mantle gas lamps, 404 mantle naphtha lamps, 2,605 electric arc lamps and 623 electric incandescent lamps.*

These lamps, as has been the custom in the past, are operated and maintained by several contractors, viz.: The gas and naphtha lamps by the American Street Lighting Company at the rate of $10 and $24 per lamp per annum, respectively; the electric arc and incandescent lamps by the

*In addition to the number of lamps shown above, there are sixty incandescent electric lamps (twelve standards of five lamps each) on City Hall Plaza which are owned and maintained by the city and are operated by time-switch located in the City Hall. Current for these lamps is supplied by the Gas and Electric Company through meter, and is charged for at the rate of three cents per kilowatt hour.

Consolidated Gas Electric Light and Power Company at the rate of $74 each per annum for arc lamps located in the underground districts, $60 each per annum for arc lamps located in the overhead districts and $20 each per annum for incandescent (40 c. p.) electric lamps; the latter lamps being confined exclusively to streets and alleys located in the overhead districts, where there are no gas mains.

The supply of gas for the gas lamps is furnished by the Gas and Electric Company at the rate of 70 cents per 1,000 cubic feet. All service connections to new gas lamps are made by the Gas and Electric Company at actual cost, averaging approximately $7 per lamp.

LAMP EQUIPMENT—PROPERTY OF.

The city owns the gas lamp posts and lanterns, with the exception of a number of boulevard type of lanterns and all patent lamp burners, which are the property of the American Street Lighting Company. The lanterns can be purchased by the city at actual cost whenever desired.

The naphtha lamp posts and equipment, which are used for lighting streets and alleys where there are no gas mains, are the property of the American Street Lighting Company, but whenever the gas mains are extended to such streets and alleys these lamps are supplanted by gas lamps, which, of course, are the property of the city, and which are more serviceable and less expensive than the naphtha lamps.

The entire equipment used for the electric arc and incandescent street lighting is furnished, installed and owned by the Consolidated Gas Electric Light and Power Company.

All ornamental lamps and equipment of a special character, such as those now located on the City Hall Plaza and those in the course of construction in the vicinity of the City Hall and for the several boulevards located in North Baltimore, are the property of the city. These lamps are to be operated under special contracts and at prices expected to be very moderate and attractive.

THE CONDITION OF STREET LIGHTING SERVICE.

With the exception of a number of defective lights, due to unavoidable causes, such as extreme weather conditions, etc., the entire service has been maintained during the year at a very high standard of efficiency.

CONTRACTS.

The following contracts for the maintenance of the street lighting service and for other work and supplies were awarded by the Board of Awards during the year as follows:

TO THE GAS ELECTRIC LIGHT AND POWER COMPANY.

Arc lamps in overhead districts, per lamp per annum.....	$60 00
Arc lamps in underground districts, per lamp per annum.....	74 00
Arc lamps (half-night) overhead districts, per lamp per annum,	54 00
Arc lamps (half-night) underground districts, per lamp per annum.....	64 00
Incandescent lamps (40 candlepower), overhead districts, per lamp per annum.....	20 00
Incandescent lamps (40 candlepower), underground districts, per lamp per annum.....	36 00

Electric current to City Hall and Court House, 3 cents per kilowatt hour.

Electric current to all municipal buildings (except those coming under jurisdiction of Park Commissioners), 4, 5 and 6 cents per kilowatt hour, according to quantity consumed.

Supply of gas to city street lamps, $7 per lamp per annum, or at the rate of 70 cents per 1,000 cubic feet.

SAVING AS COMPARED WITH FORMER COST.

A comparison of these prices with prices for the same service under former contracts shows that the city will effect an additional saving of approximately $10,000 a year for street lighting.

MISCELLANEOUS CONTRACTS.

Other contracts awarded during the year were as follows:

McCay Engineering Company, for ornamental lamp standards, per post	$41 50
W. S. Rosenfeld & Co., for installation of 12 ornamental lamp standards on City Hall Plaza, including all necessary fixtures and electrical material	998 00
Stuart R. Carr & Co., for plain iron gas lamp posts, per post	5 85

EXPIRATION OF CONTRACTS.

The contract for the supply of gas for street lamps and for use in all municipal buildings will expire March 1, 1912; that for the supply of electric current for use in all municipal buildings, August 1, 1912; that for operating and maintaining the arc and incandescent electric lamps, September 13, 1912, and that for the operation and maintenance of the mantle gas and naphtha lamps will expire November 30, 1912.

It will, therefore, be necessary to prepare specifications and solicit bids, under the usual requirements, for a renewal of these contracts for this service about July 1, 1912, with the exception of that for the supply of gas, which must be prepared and awarded prior to the date of March 1, 1912.

EXTENSION OF STREET LIGHTING SERVICE.

During the year there were placed in service in all sections of the city, 879 additional lamps of all classes. The installation of these lamps was made necessary by the natural extension of the city, which embraced about 51 new streets and alleys in various sections and by the improvement of a number of existing streets, within the old boundaries, heretofore insufficiently lighted.

Of the number of lamps above mentioned, 380 are gas lamps, 13 naphtha lamps, 58 electric arcs and 428 incandescent electric lamps, the latter being installed in streets and alleys where there are no gas mains.

STREET LAMPS DISCONTINUED FROM THE SERVICE.

Due to the substitution of arc and incandescent electric lamps, 95 gas and 399 naphtha lamps were discontinued from the service during the year and, for reasons of economy, 22 arcs and 15 incandescent electric lamps were also discontinued.

The discontinuance of these lamps did not in any manner interfere with the efficiency of the street lighting service.

LAMPS TRANSFERRED.

Conditions arising from the operations during the year of the City Engineer's Department, Commissioners for Opening Streets and the Sewerage Commission and by this Department for the improvement of the street lighting service made it necessary for the transfer from old to new locations in various sections of the city of 53 arc lamps, 55 gas lamps, 5 naphtha lamps and 10 incandescent electric lamps.

ARC LAMPS TRANSFERRED FROM OVERHEAD TO UNDERGROUND SERVICE.

One hundred and three arc lamps were transferred from the overhead to underground service, made necessary by the extension of the conduit system during the year, with the result that we were enabled to maintain a more reliable electric lighting service and to eliminate from the public streets an additional number of unsightly poles and dangerous overhead wires.

NAPHTHA LAMPS CHANGED TO GAS AND INCANDESCENT ELECTRIC LAMPS.

When the extension of the gas mains will permit, gas lamps are installed in place of naphtha and incandescent electric lamps, and when it can be arranged to extend the electric service lines to points within the city where naphtha lamps are in service and no gas mains exist, electric incandescent lamps are also installed in place of naphtha lamps.

Therefore, during the year 399 naphtha lamps were changed for gas and incandescent electric lamps and 13 incandescent electric lamps were changed for gas lamps.

The cost to the city for each naphtha lamp is $24 per annum; that for incandescent electric lamps $20 per annum, and that for each gas lamp $18 per annum. So that by the plan of subsitution mentioned above the city effects a saving in the fixed charges for this service at the rate of $4 and $2 each lamp a year, respectively, as a result of these changes, as the case may be. In addition to which the city obtains the benefit of a more reliable service.

STREET LAMP ACCOUNT.

January 1, 1911—Gas lamps in service		7,769	
Gas lamps installed during the year	364		
Gas lamps relit during the year	16		
		380	
		8,149	
Gas lamps discontinued during the year		95	
			8,054
January 1, 1911—Naphtha lamps in service		790	
Naphtha lamps installed during the year	13		
Naphtha lamps relit during the year	0		
		13	
		803	
Naphtha lamps discontinued during the year		399	
			404
January 1, 1911—Electric arc lamps in service (overhead districts)		1,556	
Electric arc lamps installed during the year		48	
		1,604	
Electric arc lamps transferred to underground districts	103		
Electric arc lamps discontinued during the year	12		
		115	
			1,489
Carried forward			9,947

Brought forward			9,947
January 1, 1911—Electric arc lamps in service (underground districts)		1,013	
Electric arc lamps installed during the year	10		
Electric arc lamps transferred from overhead to underground districts during the year	103		
		113	
		1,126	
Electric arc lamps discontinued during the year		10	
			1,116
January 1, 1911—Incandescent electric lamps in service (overhead districts)		210	
Incandescent electric lamps installed during the year,		428	
		638	
Incandescent electric lamps transferred to underground districts	2		
Incandescent electric lamps discontinued during the year	13		
		15	
			623
January 1, 1911—Incandescent electric lamps in service (underground districts)		0	
Incandescent electric lamps transferred from overhead districts during the year		2	
		2	
Incandescent electric lamps discontinued during the year		2	
			0
*Total number of street lamps of all classes in service, December 31, 1911			11,686
January 1, 1912—Total number of lamps in service, all classes			11,686
January 1, 1911—Total number of lamps in service, all classes			11,338
Total net gain for the year 1911			348

*In addition to this number, there are sixty incandescent electric lamps (twelve standards of five lights each) on City Hall Plaza which are operated by time-switch located in City Hall. These lamps are owned and maintained by the city.

STREETS AND ALLEYS ON WHICH LAMPS HAVE BEEN PLACED.

During the year the street lighting service has been extended on the following-named streets and alleys, some of which are existing streets, some being new and a number of them are new extensions of old streets. This work required the installation of 877 additional lamps of all classes.

Clarkson street, from Wells to Winder streets.
Hyacinth street, from Jackson to Webster streets.
Eutaw street, from Hamburg to Cross streets.
Park avenue, from Newington avenue to Mt. Royal Terrace.
Duval avenue, from Garrison avenue to Allendale street.
Roslyn avenue, from Piedmont to Duval avenues.
Moreland avenue, from Presbury to Baker streets.
Elsinor avenue, from Piedmont to Duval avenues.
Allendale avenue, from Piedmont avenue, to 600 feet north of Duval avenue.
Lyndhurst avenue, from Clifton to Mt. Holly avenues.
Clifton avenue, from Allendale to Lyndhurst avenues.
Calloway avenue, from Liberty Heights avenue to Chatham road.
Mondawmin avenue, from Garrison avenue to Dennison street.
Poplar Grove street, from Westwood to Edmondson avenues.
Dukeland street, from Edmondson to Harlem avenues.
Lemon street, from Catherine street to Garrison lane.
Boyd street, from Catherine street to Garrison lane.
Kingsley street, from Caton avenue east one square.
Pratt street, from Catherine street to Garrison avenue.
Robb street, from Twentieth to Twenty-second streets.
Taylor street, from Gorsuch to Homestead avenues.
Morton street, from Twentieth street south one square.
Linwood avenue, from Preston to Biddle streets.
Ellwood avenue, from Fayette street to Fairmount avenue.
Potomac street, from Lombard to Pratt streets.
Curley street, from Lombard to Pratt streets.
Kenwood avenue, from Monument to McElderry streets.
Linwood avenue, from Eastern avenue to Fleet street.
Glover street, from Fait to Foster avenues.
Robinson street, from Foster avenue to Fleet street.
Lakewood avenue, from Foster avenue to Fleet street.
Alley east of Patterson Park avenue, from Preston to Biddle streets.
Alley north of Orleans street, from Durham to Wolfe streets.

Alley west of Wolfe street, from Jefferson to Orleans streets.
Alley west of Patterson Park avenue, from Madison to Monument streets.
Alley south of Monument street, from Washington to Chapel streets.
Alley south of Jefferson street, from Collington avenue to Madeira street.
Alley west of Chester street, from Baltimore to Lombard streets.
Alley west of Chapel street, from Fairmount avenue to Fayette street.
Alley north of Baltimore street, from Milton to Linwood avenues.
Alley east of Washington street, from Lombard to Pratt streets.
Alley east of Broadway, from Chase to Eager streets.
Alley north of Hoffman street, from Luzerne street to Lakewood avenue.
Kaufman Court, from Charles to Olive streets.
Alley west of Hanover street, from Wells to Winder streets.
Alley south of Fort avenue, from Jackson to Belt streets.
Alley east of Greenmount avenue, from Twenty-first to Twenty-second streets.
Alley west of Homewood avenue, from Twenty-second street east one square.
Alley west of Boone street, from Twentieth to Twenty-first streets.
Alley north of North avenue, from Aisquith street east one square.
Alley south of Twentieth street, from Aisquith street east one square.
Alley north of North avenue, from Kennedy avenue east one square.
Lanvale street, from Charles street to Greenmount avenue.
Calvert street, from Hoffman street to Lafayette avenue.
Brevard street, from Cathedral to Dolphin streets.
Preston street, from Eutaw Place to Cathedral street.
Bolton street, from Hoffman street to Lafayette avenue.
Hoffman street, from Eutaw Place to Brevard street.
Dolphin street, from Mt. Royal avenue to Brevard street.

ORNAMENTAL STREET LIGHTING.

Various cities throughout the country are now agitating and planning the construction of ornamental street lighting systems and it is gratifying to note that the City of Baltimore is now in line with other cities for this modern improvement.

Your Honor's action in directing the Municipal Art Commission, some months ago, to select artistic lamp standards

for use on the streets in the business section and for boulevards in North Baltimore is a substantial evidence that Baltimore is about to lay a foundation for a general scheme of ornamental street lighting, which action will receive the hearty approbation of those of our citizens who are hoping for a realization of the much talked of "City Beautiful."

Therefore, the first step in the direction of the proposed general scheme of street lighting was taken when the lamps of this character were placed on the City Hall Plaza.

CITY HALL PLAZA.

Twelve lamp standards of an ornate design were installed on the City Hall Plaza, on each of which standards is attached a cluster of five Alba globe lamps—four of which are inverted and in a reversed position and one large globe on each post being in an upright position.

Six of these lamps are situated on the north and six on the south side of the Plaza, with a spacing of fifty feet. These lamps are supplied with current from the service connection from which the City Hall and Courthouse are also supplied, thus enabling the city to obtain the benefit of the minimum price of current for these lamps, and with the use of an automatic time switch, which is part of this installation, four of the lamps on each post are extinguished at midnight while the large upright lamp on each standard remains burning all night, so that by this combined arrangement the cost is considerably less for the maintenance of these lamps, which produce a greater volume and a much more uniform diffusion of light, than for that of the old type of lamps formerly in service on that thoroughfare.

A further reduction in the cost of maintenance of these lamps will become effective when the current from the High Pressure Pumping Station is available, which will be within the next two months.

The practicability and efficiency of this system of street lighting, not only from the standpoint of ornamentation, but also from that of economy, suggested the extension of it, with the result that additional lamps and fixtures of a similar character are now being installed by the working force of this Department on each of the streets surrounding the City Hall, and these lamps will be ready for service within the next two or three weeks should the weather permit the continuance of the work of construction.

These lamps will also be attached to the City Hall service connection and will be operated under the same conditions as those on the Plaza.

ORNAMENTAL LAMPS FOR SYDENHAM HOSPITAL.

In addition to the work outlined above, this Department is constructing an ornamental system of lighting for the Health Department on the driveway from Eastern avenue to Sydenham Hospital. This installation will consist of eight boulevard type single light standards spaced 162 feet apart and alternately staggered. Each post will have mounted thereon one 250-watt tungsten lamp enclosed in an 18-inch Alba globe.

All supply wires for this lighting will be underground, and provision has been made for carrying the telephone circuits leading from the telephone company's trunk line to the Hospital in the same subway. By this arrangement all overhead wires leading from the entrance and along the driveway will be removed.

The Department has acted in a supervisory capacity on this work and the Health Department, through the Superintendent of the Hospital, has employed the necessary labor and supplied the material. The work is not entirely completed at the present time on account of certain necessary material not yet having been received.

In this connection, it may be of interest to state that a special appropriation, which was favored by your Honor, will

enable the city to proceed with the construction of a number of ornamental lamps on Charles street, from Twenty-ninth street to University Parkway, and on University Parkway, from Charles street to Stony Run Bridge.

Plans are now being mapped out for this work and the completion of this installation may be expected about the beginning of next June, when it will be ready for service.

NEW STREET SIGNS PLACED.

From time to time during the year four hundred and fifty (450) new signs were erected on streets located in all sections of the city, which represent the proper marking of two hundred and fifty (250) street intersections. This improvement was made necessary on account of the changing of street names and the substitution of new signs for old and defective ones; all of which work, together with that of repairing all of the existing street signs, brackets and fixtures, having been performed by the working force of the Department.

PAINTING LAMP POSTS AND EQUIPMENT.

All gas and naphtha lamp posts, lanterns and fixtures throughout the city, amounting to eight thousand two hundred (8,200) and the electric arc lamp posts and lamps located in the underground districts, amounting to twelve hundred (1,200) have been thoroughly overhauled, repaired and painted during the year, thus adding to the attractiveness of the street lamp equipment.

REPAIR OF STREET LAMPS, FIXTURES, SIGNS, ETC.

As a result of our usual daylight inspections more than two thousand (2,000) orders were issued and executed during the year for repair work of a varied character, such as relaying

pavements at the base of lamp posts, straightening all kinds of lamp posts, raising and lowering lamp posts to conform to the proper street grades, removing unused lamp posts from the streets which were utilized for additional service at other points in the city, filling sand holes found in iron lamp posts, repairing lantern frames, replacing broken cross-arms, repairing street signs (all classes), placing signs at unmarked street intersections, changing street signs owing to the change of street names, repairing and repainting existing street signs, replacing meter lamp casings and numerous minor defects of which no record was taken; all of which work is of the usual occurrence and is largely due to the natural wear and tear of the lamp equipment and to the transfer and rearrangement of lamps as conditions for the betterment of the service may require.

COLLECTING AND TESTING COAL OIL.

The law requires that coal oil sold by retail dealers in quantities less than a barrel shall be inspected and tested by the city in order to determine whether or not the legal standard of efficiency is maintained; the object of this law being for the protection of those who may use this commodity for light and cooking purposes.

To carry out the provisions of this law, each of the eight district superintendents are required to collect from retail merchants and from delivery wagons of the several oil companies three samples of coal oil each day, except Sunday, and these samples are brought to the laboratory of the Department for inspection.

A total of 6,240 samples of oil were thus collected and tested—at the rate of 24 samples each per day during the year—and in no case was the oil found to be below the legal standard flashing point, namely, 120 degrees Fahrenheit.

The following table will show the number of determinations and the results obtained each month:

TABLE SHOWING RESULTS OF COAL OIL TESTS—FLASHING POINTS.

Month.	Minimum Flash F. Degrees.	Maximum Flash F. Degrees.	Average Flash F. Degrees.	Number of Determinations.	Number of Oil Wagons.
January	125	142	131	525	2
February	125	140	131	468	4
March	124	143	131	627	11
April	125	155	131.5	551	4
May	125	145	131	594	3
June	125	143	130.5	700	12
July	125	145	131	215	5
August	125	143	130.9	532	4
September	125	139	129	324	3
October	124	137	128	608	1
November	125	139	129.5	512	12
December	125	138	129	579	6

Minimum flash point for the year..... 155 F. degrees.
Maximum flash point for the year..... 124 F. degrees.
Average flash point for the year..... 130 F. degrees.

METER READINGS—GAS AND ELECTRIC BILLS.

Readings of all gas and electric meters used to register the supply of gas and electric current consumed in all street gas lamps and in all municipal buildings and other public places within the city, were taken and recorded by the district superintendents each month during the year, amounting to 8,136 individual readings. The object to be obtained by this work is to enable this Department to compare these readings with the readings of these same meters as taken by the Gas and Electric Company, and thus it is made possible for

the city to ascertain the exact quantity of gas and electricity consumed by the entire city, independent of the statement of consumption furnished by the companies supplying these illuminants.

By this method the accuracy of all resulting bills for gas and electric current consumed in all departments of the city government is determined and certified to by this Department before payment of these bills can be made by the city. These are regulations and requirements imposed by law.

PLAN OF NIGHT INSPECTION OF THE SERVICE.

Every conceivable method is made use of by the Department for the purpose of making it possible to maintain a uniform standard of street lighting during the hours of burning every night in the year and with that object in view the following plan of inspection has been established:

The city is divided into eight districts and the street lamps of all kinds embraced in each of these districts are in charge of a district superintendent, whose duty it is to keep a strict supervision over the lamps and to see that the standard of light required by the contract is maintained during the hours of burning and to report any neglect on the part of the contractor or his employees, which may result in a defective service.

These districts are sub-divided into four sections of approximately one square mile each, and the district superintendents are required to patrol each section nightly, in rotation, except when previous inspections in any one of the sections show the condition of the lamps to be below what is deemed the standard efficiency of the service, in which event the district superintendent is required to patrol that particular section continually until the defective service is improved.

As a result of this system there have been made during the year 321 nightly inspections by each of the eight district superintendents, comprising approximately eight square miles

of territory each night by the entire force, or a total of 2,568 square miles during the year. This means that the entire city is covered by the eight district superintendents 80¼ times during each year.

Any defects in the service of whatever character that may be discovered as the result of this close inspection are immediately remedied and thus the standard of efficiency required by the terms of the contract is maintained.

Defective service may, at times, exist as the result of the willful negligence of the contractor, in which event penalties are imposed in all such cases.

Defects in the service may also occur through conditions beyond the control of the contractor, mainly due to extreme weather conditions, in which event the contractor is not penalized.

However, in all cases of defective service, the efficient system of inspection prevailing in the Department enables the Superintendent of Lamps and Lighting to detect such service, place the responsibility and have it corrected without unnecessary delay and to impose penalties when imperfect service is found to be the result of neglect.

DAYLIGHT INSPECTION.

At intervals of every three months during the year each district superintendent is required to inspect the street lamps, street signs and all other lamp equipment in his district in the day time, which requires a period of about two weeks at each of such inspections.

The purpose of this inspection is to discover any defects that may exist in or about the street lamps, signs and fixtures, which are not readily discernible at night, whereby the Department is enabled to keep in touch at all times with the condition of the lamp equipment and to make repairs and alterations when found necessary as promptly as possible.

EXTENSION OF THE SERVICE ON EXISTING STREETS.

Prior to the present City Charter becoming effective (March, 1900), the installation of all street lamps was ordered by ordinance of the Mayor and City Council and the points on the streets at which lamps were placed were always designated by these old ordinances in the following manner: "One gas lamp at each of the two corners of street intersections and one gas lamp in the centre of a city block," and, notwithstanding the great length of a city block, the practice at that time was to place but one gas lamp in it, with the result that many of our prominent resident streets are practically in darkness at night.

Since assuming charge of the Department the saving, as the result of economies practiced by the Department and the reduction from time to time in the cost of the service, have enabled me to place additional lamps on some of these thoroughfares, thus improving the street lighting service on many of these residence streets, with quite a large number in all sections of the city in need of additional lamps.

In this connection, it is most gratifying to note that your Honor is thoroughly impressed with the necessity of an extension of this improvement on existing streets, in that you have sanctioned and approved a special appropriation for this purpose and, as a result, every street embraced in the twenty-five miles of street selected by the Paving Commission for improved paving will also be properly and sufficiently lighted by the installation of a large number of additional lamps of all classes during the year 1912.

This special appropriation will, therefore, be applied exclusively for the erection and maintenance of additional lamps on the following-named streets:

Harford avenue, from Forrest street to North avenue.
Aisquith street, from Orleans street to Ashland avenue.
Aisquith street, from Harford to North avenues.
Ensor street, from Gas street to Harford avenue.

Constitution street, from Madison to Front streets.
Front street, from Gay to Forrest streets.
High street, from Front to Lexington streets.
High street, from Fayette to Baltimore streets.
Chester street, from Chase to Monument streets.
Chester street, from McElderry to Orleans streets.
Camden street, from Hanover to Charles streets.
Barre street, from grade crossing west of Sharp to Charles streets.
Jefferson street, from Wolfe street to Patterson Park avenue.
Jefferson street, from Broadway to Aisquith street.
Hoffman street, from Greenmount avenue to Eden street.
Hoffman street, from Caroline to Bond streets.
Bond street, from Hoffman to Madison streets.
Pine street, from Saratoga to German streets.
Penn street, from German to Pratt streets.
Eager street, from Jones Falls to Chester street.
Biddle street, from Jones Falls to Broadway.
Madison street, from Greenmount to Patterson Park avenues.
Bond street, from Hoffman street to North avenue.
Caroline street, from Chase to Hoffman streets.
Caroline street, from Oliver street to North avenue.
Eden street, from Madison to Lanvale street.
Central avenue, from Lancaster street to Harford avenue.
Ensor street, from Chase street to Lamont avenue.
Preston street, from Valley to Gay streets.
Lanvale street, from Ensor street to Broadway.
Lafayette avenue, from Aisquith street to Broadway.
Oliver street, from Ensor street to Lamont avenue.
Aisquith street, from Baltimore to Lexington streets.
Exeter street, from Front to Lombard streets.
President street, from Pratt to Lancaster streets.
Eastern avenue, from East Falls avenue to Broadway.
Aliceanna street, from East Falls avenue to Caroline street.
Chase street, from Broadway to Patterson Park avenue.
Fayette street, from Broadway to Luzerne avenue.
Fayette street, from Poppleton to Eutaw streets.
Hill street, from Howard to Charles streets.
Patterson Park avenue, from Baltimore to Chase street.
Linden avenue, from Biddle street to North avenue.
John street, from Dolphin street to North avenue.
Park avenue, from Biddle to McMechen streets.
Park avenue, from Laurens street to North avenue.
Richmond street, from Howard to Cathedral streets.

FINANCIAL STATEMENT.

APPROPRIATION FOR LIGHTING THE CITY.

Appropriation for the year 1911	$371,644 29
Appropriation, Ordinance No. 567, illumination Order Moose,	2,000 00
Appropriation, Ordinance No. 559, illumination Order Odd Fellows	450 00
Total	$374,094 29

EXPENDITURES FOR LIGHTING THE CITY.

Salaries	$15,282 33	
Gas lighting and maintenance	154,790 96	
Naphtha lighting and maintenance	12,097 28	
Electric lighting and maintenance	188,647 53	
Incidentals	346 73	
Special illumination, Order Moose	1,965 00	
Special illumination, Order Odd Fellows	450 00	
		373,579 83
Balance unexpended, December 31, 1911		$514 46

RECEIPTS DURING THE YEAR.

Sale of old material	$1,531 24
General revenue	175 32
Total receipts during the year, to December 31, 1911	$1,706 56

CO-OPERATION.

It is my pleasure to report that all of the departments of the city government have actively co-operated with this Department during the year, with the result that all public business has been disposed of without friction or confusion of any kind and to the very best interests of the public welfare.

Respectfully submitted,

ROBERT J. MCCUEN,
Superintendent of Lamps and Lighting.

SPECIFICATIONS

For Furnishing, Operating and Maintaining Electric Arc and Incandescent Lamps for Lighting the Streets, Avenues, Parks, Squares, Roads, Bridges, Docks, Piers, Lanes and Alleys Within the City of Baltimore.

Separate bids will be received for lighting the streets, avenues, parks, squares, etc., within the city with electricity under the following conditions:

General.

1. Separate bids must be submitted in sealed envelopes marked "Proposals for Electric Arc and Incandescent Lights," and addressed to the Board of Awards, in care of the City Register, City Hall, Baltimore, Md., not later than 11 o'clock A. M., Wednesday, July 26, 1911.

Contract Terms.

2. Bids must be submitted for terms of one, two three and five years.

3. Bids must be submitted for all arc and incandescent lamps now in service and such additional lamps that may from time to time be ordered to be installed during the term of the contract by the Superintendent of Lamps and Lighting within the corporate limits of the City of Baltimore.

4. All bids must contain at least three classifications, one for street lighting service in the underground districts including subway duct rental, one for street lighting service in the underground district *less* subway duct rental and one for street lighting service in the overhead districts. The classifications shall be considered together as going to make up one bid and not separately, the intent being to award the electric lighting contract to one contractor.

Certified Check.

5. Each bidder must enclose with his bid his certified check on a clearing house bank for five hundred dollars ($500), made payable to the order of the Mayor and City Council of Baltimore. The check of the successful bidder will be returned after a proper bond has been given for the carrying out of the contract. If the bidder fails to furnish the bond as required by these specifications within ten days after the award is made, the said check shall be forfeited to the City.

Bond.

6. Bond in the amount equal to the contract price will be required upon the award of the contract conditioned for the faithful performance of each and every one of the terms of the contract to be performed by the contractor as herein specified, and the contractor by said bond shall indemnify and hold harmless the Mayor and City Council of Baltimore city against any and all claims, which may be made by reason of any infringement of patent rights in the use of the lamps, dynamos or any other article, apparatus or process which may be used in operating or maintaining the lamps under these specifications; and said bond shall also indemnify and hold harmless the Mayor and City Council of Baltimore, its officers, agents or servants, and each and every one of them, against and from suits of action of every name and description brought against the Mayor and City Council of Baltimore city, or any of its officers, agents or servants, and also from all damages and costs to which it, they or any of them may be put by reason of injury to the person or property of another, resulting from negligence, or carelessness in the performance of its obligations under this contract, or from any failure on the part of the contractor to comply with any or all of the conditions of these specifications.

Whenever the surety or sureties on the bond so furnished shall be deemed by the Mayor to be insufficient or unsatisfactory, the contractor, within ten days after notice to that effect, shall furnish and deliver a new bond to the Mayor and City Council of Baltimore, in the same penalty and on the same conditions, with surety satisfactory to the Mayor, and this duty shall continue on the part of the contractor, whenever and so often as the Mayor shall require a new bond with a satisfactory surety or sureties. If the contractor shall fail to furnish such bond within ten days after said notice mailed to his address, the Mayor and City Council of Baltimore, through its proper agent or agents, may stop all further work under said contract and relet the unfinished work at the expense of the contractor.

To prevent disputes and litigations, the Superintendent of Lamps and Lighting shall in all cases determine the amount, quality and acceptability of the work and supplies which is to be paid for under the contract; shall determine all questions in relation to said work and supplies, and the performance thereof, and shall in all cases decide every question which may arise relative to the fulfillment of the contract on the part of the contractor. His estimate and decision shall be final and conclusive, and in case any question shall arise between the parties touching the contract, such estimate and decision shall be a condition precedent to the right of the contractor to receive any moneys under the contract.

Should any question arise as to the true construction of this contract or of the specifications hereto attached, said questions shall be submitted to the Superintendent of Lamps and Lighting, whose decision thereon shall be final, binding and conclusive on all the parties. This provision is in addition to, and not in substitution for, the preceding paragraph.

Annulment of Contract.

7. If the contractor shall not well and truly observe, perform, fulfill and keep all and singular the covenants and conditions herein mentioned and contained, on his part and behalf to be observed, performed, fulfilled and kept, according to the true intent and meaning of these specifications, then in that case the Superintendent of Lamps and Lighting, with and by the advice and consent of the Mayor, may and shall have the power on the part of the City of Baltimore to declare this contract annulled and vacated, and thereupon it shall become and thenceforth be null and void.

Interpretation of Specifications.

8. As it is the true intent of these specifications to make provision for obtaining and keeping in service at all times during the existence of this contract the very best and highest standard of electric arc and incandescent lighting street service as it is possible to secure, consistent with the recognized electric standards, it is distinctly understood that any doubt as to the meaning of these specifications and any obscurity in the wording of them will be clarified and interpreted by the Superintendent of Lamps and Lighting, who shall have the right to correct any ambiguity in them when such correction is necessary for the proper fulfillment of their intentions and the object desired, and whose explanation and interpretation shall be binding on the contractor.

As to Municipal Lighting Plant.

9. Nothing in these specifications shall be construed to prohibit or prevent the Mayor and City Council of Baltimore city from contracting for or establishing, using and maintaining their own electric lighting system for the purpose of lighting the city streets or any building or place under the control or supervision of the said Mayor and City Council, and when the said Mayor and City Council shall provide its own electric lighting system the Mayor may, upon one year's notice to the contractor, annul the contract made in this specification, provided this concluding provision relating to annulling the contract upon one year's notice shall only apply to a contract which exceeds three years in duration.

10. The Board of Awards reserves the right to reject any or all bids.

Territory to Be Lighted.

11. The territory to be lighted by the contractor under the requirements of these specifications shall be the City of Baltimore, and this territory shall be divided into two classes of districts, to be known as "Underground Districts" and "Overhead Districts," respectively.

Underground and Overhead Districts.

12. For the purpose of these specifications, the "Underground Districts" are defined as those streets, avenues, parks, squares, roads, bridges, docks, piers, lanes and alleys within the City of Baltimore, wherein the city has installed, or does from time to time during the term of this contract, construct systems of conduits, and where poles and overhead wires are eliminated or prohibited by proper order of the Electrical Commission. The "Overhead Districts" for the purpose of these specifications, are defined as those portions of the City of Baltimore beyond or outside of the limits of the said "Underground Districts."

Underground Lamps and Regulations of Electrical Commission.

13. All arc and incandescent lamps located within these "Underground Districts" and such additional arc and incandescent lamps as may be ordered to be installed during the term of this contract shall be supplied by and through underground connections properly established by the contractor in the city conduits, under the supervision and in accordance with the rules, regulations and requirements of the Electrical Commission.

Overhead Lamps Changed to Underground at Contractor's Expense.

14. All arc and incandescent lamps located and in service within the overhead districts and all additional arc and incandescent lamps that may be ordered to be installed during the term of the contract shall be supplied by overhead wires. As the underground districts extend beyond their present boundaries, the contractor shall, at his own expense, except as to conduits, change from overhead to underground service in such extended underground districts, and all arc and incandescent lamps comprised in such change shall, after said change, be paid for by the city at the rate covered by the contract price for the maintenance of arc and incandescent lamps in the underground districts.

All Overhead Lamps to Be Changed to Underground Service as Conduit System Is Extended.

15. All arc and incandescent lamps located in the underground districts shall be served from circuits carried underground in the city conduits, and as said underground districts may be extended from time to time during the term of this contract. All arc and incandescent lamps located along the line of such extensions of underground districts shall be changed from overhead to underground supply, in accordance with the provisions of these specifications, as soon as practicable after the conduit extensions have been made, and after receipt by the contractor of a proper order for the change. The lateral duct connections to the lamp poles for the proper distances will be made and owned by the City of Baltimore. The cable furnishing the electric service to each and every arc and incandescent lamp within the limits of the underground districts which shall be ready for service when this contract becomes effective, and thereafter furnished during the term of this contract, as said underground districts are from time to time extended, is to be owned and operated by the contractor, together with all appliances and devices necessary for the proper operation of the arc and incandescent lamps located in said underground districts. These specifications and the contract shall apply to and cover all lamps located in all the public parks and squares and all additional arc lamps that may be ordered to be installed in such parks and squares during the term of the contract, and is not to include the installation or maintenance of incandescent lamps for any of the parks. Unless the City should decide to assume the payment of the duct rental, or to release the contractor from such duct rental, it is further conditioned that the contractor, upon the execution of a satisfactory contract, shall pay to the City of Baltimore duct rental at the rate or rates established by the Electrical Commission, in accordance with the lease executed by the contractor with the said Electrical Commission.

Equipment.

16. All labor, apparatus, arc lamp posts (similar to those now in service in the underground districts), mast arms, brackets, cables, wires, conductors, lamps, carbons, fixtures, fittings, connections, and appurtenances of any kind and every description, ordinarily necessary for and suitable for the lighting of streets, etc., by electricity, under the requirements of these specifications, shall be furnished by and at

the expense of the contractor, and also all electric current and labor of every description for supplying all arc and incandescent lamps with electricity, and also maintenance and repairs of every kind. All construction, supplying of current, carbons, electrodes and globes of suitable quality and all labor necessary for lighting, extinguishing and keeping in repair and for all other purposes, shall be furnished at the expense of the contractor. All cables, wires and conductors of every description used for conveying and distributing the electric current to all arc and incandescent lamps shall be properly and thoroughly insulated, and shall be placed in such locations and in such manner as will prevent them from being readily tampered with or handled by any unauthorized person or persons.

Type of Lamps.

17. Bids must be submitted on each of the types of arc and incandescent lamps described as follows:

Continuous Current Arc Lamps.

6.6 ampere constant current series enclosed arc type.
6.6 ampere constant current series luminous arc type.
4.0 ampere constant current series luminous arc type.
6.6 ampere constant current series flaming arc type.
10.0 ampere constant current potential flaming arc type.

Single Incandescent Lamps.

40 candlepower series, 4 and 6.6 amperes.
60 candlepower series, 4 and 6.6 amperes.
80 candlepower series, 4 and 6.6 amperes.
100 candlepower series, 4 and 6.6 amperes.

Three-Light Cluster Incandescent Lamps.

40 candlepower series, 4 and 6.6 amperes.
60 candlepower series, 4 and 6.6 amperes.
80 candlepower series, 4 and 6.6 amperes.
100 candlepower series, 4 and 6.6 amperes.

Including supply and maintenance of the lamps and enclosing globes. City to furnish, erect and wire posts and fixtures.

Five-Light Cluster Incandescent Lamps.

40 candlepower series, 4 and 6.6 amperes.
60 candlepower series, 4 and 6.6 amperes.
80 candlepower series, 4 and 6.6 amperes.
100 candlepower series, 4 and 6.6 amperes.

Including supply and maintenance of the lamps and enclosing globes. City to furnish, erect and wire posts and fixtures.

Single Incandescent Lamps.

40 candlepower multiple.
60 candlepower multiple.
80 candlepower multiple.
100 candlepower multiple.

Three-Light Cluster Incandescent Lamps.

40 candlepower multiple.
60 candlepower multiple.
80 candlepower multiple.
100 candlepower multiple.

City to furnish, erect and wire posts and fixtures. Contractor to furnish and maintain lamps and enclosing globes.

Five-Light Cluster Incandescent Lamps.

40 candlepower multiple.
60 candlepower multiple.
80 candlepower multiple.
100 candlepower multiple.

City to furnish, erect and wire posts and fixtures. Contractor to furnish and maintain lamps and enclosing globes.

Continuous Current Enclosed Type.

Lamps of this type must operate at not less than six and six-tenths (6.6) amperes, and not less than seventy-two (72) volts, measured at the arc.

Continuous Current Luminous Arc Type.

Lamps of this type, as specified, must operate at not less than four (4) amperes, and not less than seventy-two (72) volts, measured at the arc.

The specified electric current and voltage for each arc and incandescent lamp must be maintained at each and every lamp in each and every circuit of such lamps. Any electric lamp other than those specified may be substituted at any time by the contractor for those specified, provided it is proved to be equal to the same in illuminating power and effect and in uniformity of operation.

Bids Must State Price for All Night and Half Night Service.

18. The bidder must state in his bid the price per arc and incandescent lamp per year for lamps burning *all* night and *every* night, and also for lamps burning for every *half* night during the year, for which he will furnish and light each of said lamps. The contractor must state also the price per arc and incandescent lamp per year with and without duct rental.

19. The incandescent lamps furnished under these specifications are to be of a standard and approved type, suspended from plain wood posts and plain lamp brackets or goose necks, except as specified in Section 27 of these specifications, and shall be of the best quality, with globe of clear glass of uniform thickness and proper shape to avoid causing rings or streaks of light and shadow. All arc and incandescent lamps that may become broken must be promptly replaced by sound ones, and all electric lamps used under these specifications shall burn with a steady light without undue hissing or flickering, each and every night during the term of this contract.

20. Should the contractor during the term of the contract be furnishing more than one type of arc lamp or incandescent lamp the contractor shall be permitted in the installation of additional lamps to use the one of these types which is suitable to be operated upon the circuit most favorably located or loaded as regards the location of any additional lamp ordered by the Superintendent of Lamps and Lighting.

Equipment Not to Be Dangerous or Unsightly.

21. Such equipment furnished under these specifications must not be dangerous, unsightly, or such as to incommode the adjoining property unnecessarily, and shall be erected in a manner satisfactory to the Superintendent of Lamps and Lighting.

Change of Lamp Locations and Discontinuance.

22. The transfer of arc and incandescent lamps must be made by the contractor within a reasonable time after the receipt of notice from the Superintendent of Lamps and Lighting, and the actual cost

of labor employed in making these changes shall be paid to the contractor by the city, except in cases where such changes are made to conform to new curb lines, grades, or other work not coming under the jurisdiction of the Department of Lamps and Lighting. The Superintendent of Lamps and Lighting reserves the right at any time to discontinue the use of any arc or incandescent lamp or lamps that he may deem expedient, provided, however, that the number of lamps specified as a minimum number to be furnished under these specifications shall not be diminished so long as the contract remains in force, and provided, further, that the total number of arc or incandescent lamps discontinued from service shall not exceed more than ten arc lamps, nor more than ten incandescent lamps in any one year, except in case of an extreme emergency.

Frosted Globes—Shading

23. The Superintendent of Lamps and Lighting shall have the right to require the contractor to furnish ground globes or lamp shades for the purpose of shading such house or houses as may be deemed advisable in the judgment of the Superintendent of Lamps and Lighting, which the contractor shall furnish without additional cost.

Incandescent Lamp Renewals by Contractor.

24. Should any of the incandescent lamps furnished under the specifications become blackened, or otherwise reduced in candle power to an amount exceeding twenty per cent. (20%) of their initial candle power, same shall be promptly renewed by the contractor.

Clean Globes.

25. In case of open arc lamps, dirt and carbon dust must be removed from the globe and thoroughly cleansed inside and outside each day before starting to light. In the case of inclosed arc lamps this must be done every four days. Each inclosed arc lamp shall be supplied with a clear glass, opal or opalescent glass, outer and inner globe, as may be directed by the Superintendent of Lamps and Lighting, and shall also be supplied with a clean glass outer globe.

Painting Lamp Posts.

26. All lamp posts, lamp supports and fixtures for the use of arc or incandescent lamps located in the underground district must be painted two coats of paint in such color as directed by the Superin-

tendent of Lamps and Lighting, and such painting shall be done as often as necessary to preserve a good appearance. All new lamp posts, lamp supports and fixtures for the use of any additional arc and incandescent lamps that may be ordered erected in said underground district shall be painted as soon as possible after the same have been erected.

Special Lamp Posts and Equipment.

27. Any and all special or ornamental lamp posts or other special equipment or arc or incandescent lamps required by the Superintendent of Lamps and Lighting and approved by the contractor shall be completely wired, erected and paid for and properly maintained, except lamps and globes, by, and shall remain the property of, the City of Baltimore.

Adjustment of the Lamp Equipment.

28. Whenever the Superintendent of Lamps and Lighting shall require that any lamp post or posts furnished by the contractor shall be straightened or set plumb, or that any lamp post or posts or other fixtures be painted or repaired, or that any arc or incandescent lamp be adjusted in such manner as will remove any shadows from the street beds so as to distribute the light to the best advantage in lighting the streets, the same shall be done as soon as practicable after the Superintendent of Lamps and Lighting shall notify the contractor of such requirement.

Removal of Lamps and Equipment.

29. The contractor shall remove any and all lamps, lamp posts, poles and fixtures used, erected and maintained by him exclusively for lighting under these specifications within ninety days after the expiration of this contract, should the Superintendent of Lamps and Lighting so require.

Testing.

30. For the purpose of making tests to determine whether or not the candle-power required by the terms of these specifications is being supplied by the arc and incandescent lamps and of examining apparatus and appliances, it is understood and agreed that the contractor will furnish to and permit such person or persons as the Superintendent of Lamps and Lighting may authorize access, at all times to all lamps, lamp posts, poles, wires, conduits, fixtures, apparatus and machinery on the streets or to any of the stations of the contractor supplying electric current or light under these specifications, and the said Superintendent of Lamps and Lighting shall have the privilege at any and all

times when the arc and incandescent lamps are burning of testing any of the city electric light circuits at such point or points as may be selected by the Superintendent of Lamps and Lighting, by the use of such standard measuring instruments as he may desire to use, and any arc or incandescent lamp not found up to the standard of light, as provided by the specifications, will be considered as not burning, and the contractor shall be penalized as herein specified.

Service.

31. The term of this contract shall be from, and the service under this contract shall begin with September 13, 1911.

Number of Lamps at Beginning of Contract.

32. The minimum number of arc lamps in service July, 1911, to be supplied under these specifications is two thousand five hundred and ninety-six (2,596), of which number ten hundred and sixty-five (1,065) are now in the underground districts, and one thousand five hundred and thirty-one (1,531) are now in the overhead districts; and the contractor shall furnish all necessary equipment for supplying same, except the poles and wires in Druid Hill Park, now the property of the city, but the use of such poles and wires will be granted to the contractor under these specifications, without charge. The minimum number of incandescent lamps to be furnished under these specifications is five hundred and eighty-six (586).

Daily Report of Outage.

33. The contractor will be required to supply a recording ammeter chart each morning, showing the performance of each machine or rectifier used on the circuits on the night previous. The contractor shall each day, before twelve o'clock noon, make a written report to the Superintendent of Lamps and Lighting, stating the number and location of any lamps extinguished or not burning on the preceding night, if any; the time when each lamp was reported extinguished or not burning, and the time the lamp was relighted and started burning; and the said report shall also state the cause for each said lamp being extinguished or failing to burn; and if any of the said lamps are extinguished by reason of the failure of the current to supply said lamps, or for any other reason, his report shall contain a statement of the cause of such failure to supply current.

Monthly Schedule of Lighting and Extinguishing Lamps.

34. On or before the last day of each month the Superintendent of Lamps and Lighting shall furnish to the contractor a schedule showing the time when the arc and incandescent lamps shall start to burn each night of the next ensuing month, and the time when the said arc and incandescent lamps shall be extinguished, which for lamps burning all night and every night during the year, shall be a half hour after sunset to half an hour to sunrise, respectively, in fair weather, and from sunset to sunrise when cloudy, and for lamps burning every half-night during the year, shall be from a half hour after sunset to midnight. The burning hours for each lamp under these specifications shall not exceed a total of four thousand (4,000) hours, annually, for lamps burning all night and every night, and two thousand (2,000) hours, annually, for lamps burning every half night during the year.

Voltage and Candlepower.

35. The contractor is to maintain service at the current voltage and candle-power characteristics specified herein, subject to the provisions of Section Seventeen (17) herein, during the entire time provided in the said schedule, and all electric lamps shall burn at standard operating condition during the said time.

Contractor's Responsibility.

36. Any approval given by the Superintendent of Lamps and Lighting of any arc or incandescent lamps or equipment, provided under these specifications, or of any locations, shall not relieve the contractor of any responsibility in case of accident or injury to person or property.

Fines for Outages and Defective Service.

37. The contractor shall use due diligence in providing a regular uninterrupted supply of current during the time specified herein. Should the supply of current or the service under these specifications be interrupted or be defective, or fail as a result of the company's negligence, the Superintendent of Lamps and Lighting may deduct one night's pay for every arc or incandescent lamp not up to the standard provided herein, or for any arc or incandescent lamps upon a circuit not up to the standard, and two night's pay for every arc or incandescent lamp which the contractor shall fail to light during the entire night; provided that the Superintendent of Lamps and Lighting may, if the

circumstances fairly warrant it, decide that a less reduction be made, and omit any part of the penalty imposed by this section, and should any arc or incandescent lamp or lamps be extinguished or not lighted during the time provided in the said schedule, through the fault or negligence of the contractor, and during the period of thirty minutes consecutively, the said Superintendent of Lamps and Lighting may deduct from the bills of the contractor half the amount which the contractor would be entitled to receive if such arc or incandescent lamp or lamps had been lighted during the whole night, and for each and every arc or incandescent lamp which shall be extinguished or not lighted for sixty minutes consecutively, the Superintendent of Lamps and Lighting may deduct the full amount which the contractor would be entitled to receive if such arc or incandescent lamp or lamps had been lighted the whole night, which deductions are hereby agreed upon, fixed and determined as liquidated damage which the contractor will suffer by reason of such lamps being extinguished or not lighted, or defective, as aforesaid, and not by way of penalty.

Any half-night lamp found to be out or not burning, or defective in any manner described hereinbefore, shall subject the contractor to half the amount of each fine stipulated in this paragraph for all night and every night lamp which may be found to be out or defective as set forth above.

Whenever and as often as any lamps supplied under these specifications shall cease or fail to burn, the contractor shall use due diligence to relight the same as soon as practicable and keep said lamps burning for the remainder of the night, even though under the terms of these specifications the contractor is to receive no pay for the said lamps for that night by reason of same having been out for one hour during the said night.

City to Light in an Emergency at Contractor's Expense.

38. Any failure on the part of the contractor to light the lamps, as required by the terms of these specifications, to such an extent as to require the city to provide any other, or a similar character of light, which may be necessary to meet the conditions that exist as a result of such failure to light the city streets, the additional expense of all such emergency lighting shall be charged to the contractor under this contract.

Defective Lamps to Be Changed.

39. Lamps not burning in a manner satisfactory to the Superintendent of Lamps and Lighting or his representatives shall be changed or adjusted, and proper lamps substituted within twelve hours after notice has been given by the Superintendent of Lamps and Lighting or his representatives that the lamps referred to does not burn satisfactorily or in accordance with the specifications.

40. No service whatever, other than that contracted for by the city and maintained on the city circuits, shall be supplied from the circuits giving current to the city lamps under these specifications, unless such service shall be approved in writing by the Superintendent of Lamps and Lighting.

System of Patrol Required.

41. The contractor must maintain, at his own expense, an efficient system of patrol for inspecting the arc and incandescent lamps during the hours of burning, so that any arc or incandescent lamp which fails to burn properly shall be promptly reported and put in order, or immediately replaced with a sound lamp. It is understood by the contractor that the utmost diligence shall be used in order that the streets, avenues, lanes, alleys, etc., shall be properly and efficiently lighted, and to this end a sufficient number of men shall be employed as inspectors by the contractor, so that each arc or incandescent lamp may be visited and examined at least three times each night.

The contractor shall be required to arrange a schedule of passing points for his patrolmen in order that the inspectors of the lighting department can get in touch with them, when occasion requires, with the least possible delay.

Safety Appliances.

42. All safety appliances known to the best electrical practice shall be used throughout the system authorized directly or indirectly by this contract.

Circuit List of Lamps When Required.

43. The contractor shall furnish to the Superintendent of Lamps and Lighting, within five days of his request, the number and geographical location of each lamp on each circuit, and shall also specify the order in which the lamps are located on the circuit.

Payments.

44. It is further specified that on or before the fifth day of each and every month during the term of this contract the contractor shall make a statement to the satisfaction of the Superintendent of Lamps and Lighting that the said contractor has fully performed and fulfilled this contract in all particulars and conditions aforesaid during the preceding month.

The contractor will be paid by the city for the electric service supplied by said contractor at the contract price, on or before the fifteenth of each month, adjusted according to the number of street lamps in actual use.

Attention is called to Chapter 85 of the Acts of 1908.

ROBT. J. MCCUEN,
Superintendent of Lamps and Lighting.

Approved, July 12, 1911:

JAMES H. PRESTON,
President Board of Awards.

BID.

JULY 25, 1911.

To the Board of Awards,

Care of *City Register*, City Register's Office,
City Hall, Baltimore, Md.

GENTLEMEN—Referring to the specifications approved July 12, 1911, and entitled "Specifications for Furnishing, Operating and Maintaining Electric Arc and Incandescent Lamps for Lighting the Streets, Avenues, Parks, Squares, Roads, Bridges, Docks, Piers, Lanes and Alleys within the City of Baltimore," which specifications are signed by Robert J. McCuen, Superintendent of Lamps and Lighting, and approved by James H. Preston, President of the Board of Awards, the Consolidated Gas Electric Light and Power Company of Baltimore (hereinafter called the Company) hereby submits bids under said specifications at the prices set forth in the accompanying Exhibit "A," subject to the following conditions:

In view of the bond required for the faithful performance of the terms of the contract and specifications, it is respectfully submitted and made a condition of this proposal that the following paragraph of Section 6 be excluded from the specifications:

"To prevent disputes and litigations, the Superintendent of Lamps and Lighting shall, in all cases, determine the amount, quality and acceptability of the work and supplies which are to be paid for under the contract; shall determine all questions in relation to said work and supplies, and the performance thereof, and shall, in all cases, decide every question which may arise relative to the fulfillment of the contract on the part of the contractor. His estimate and decision shall be final and conclusive, and in case any question shall arise between the parties, touching the contract, such estimate and decision shall be a condition precedent to the right of the contractor to receive any moneys under the contract. Should any question arise as to the true construction of this contract or the specifications hereto attached, said question shall be submitted to the Superintendent of Lamps and Lighting, whose decision thereon shall be final, binding and conclusive on all the parties. This provision is in addition to, and not in substitution for, the preceding paragraph."

And also that the following Section 8 be excluded from the specifications:

"As it is the true intent of these specifications to make provision for obtaining and keeping in service at all times during the existence

of this contract the very best and highest standard of electric arc and incandescent street lighting service as it is possible to secure, consistent with the recognized electric standards, it is distinctly understood that any doubt as to the meaning of these specifications and any obscurity in the wording of them will be clarified and interpreted by the Superintendent of Lamps and Lighting, who shall have the right to correct any ambiguity in them when such correction is necessary for the proper fulfillment of their intention and the object desired, and whose explanation and interpretation shall be binding on the contractor."

In view of the specifications not now providing under the classification "Underground Districts" for all lamps which are supplied by underground cables, it is respectfully submitted and made a condition of this proposal that Paragraph 12 be amended by adding certain provisions, indicated below and italicized, so that the section will read as follows:

"For the purpose of these specifications, the 'Underground Districts' are defined as those streets, avenues, parks, squares, roads, bridges, docks, piers, lanes and alleys within the City of Baltimore, wherein the City has installed or does, from time to time during the term of this contract, construct a system of conduits, and where poles and overhead wires are eliminated or prohibited by proper order of the Electrical Commission. *Lamp locations situated within three hundred* (300) *feet of the aforesaid 'Underground Districts' and supplied by cable passing through said 'Underground Districts' shall be considered to be within said 'Underground Districts.'* 'Overhead Districts,' for the purpose of these specifications, are defined as those portions of the City of Baltimore beyond or outside the limits of the said 'Underground Districts' *and aforesaid lamp locations.*"

Referring to Section 17, it is understood that the luminous arc type bid on is the so-called "magnetite" lamp, and that the 6.6 ampere constant current series flaming arc lamp bid on is the "regenerative A. B." lamp.

We do not bid on the 10 ampere constant current potential flaming type of arc lamp, as we know of no such lamp. We do not bid on the multiple flame lamp, but would suggest that current for operating any special type of lamp may be obtained by the City under the contract for the "city building lighting."

In view of the danger of operating lamps on a series circuit with iron posts, no bid is submitted on the three or five light cluster

series incandescent lamps. The incandescent clusters bid upon hereunder are to be turned on and off by the Company at the schedule times, and the Company is to furnish standard round inside-frosted globes for use on the clusters, and the City is to furnish and install a switch for each post. It is suggested that the design of the post to be such that there will be sufficient space in the base of the post for a meter.

Under Section 22, we bid on the understanding that the mimimum number of lamps specified, namely, two thousand five hundred and ninety-six (2,596), is the number now in use by the City, directly under the control of the Superintendent of Lamps and Lighting, and does not include the additional one hundred and fifty (150) lamps now in the parks, twenty-three (23) marginal lamps, two (2) lamps now used by the Harbor Board, two (2) lamps now used by the Street Cleaning Department and eight (8) lamps now used by the Water Board, or one hundred and eighty-seven (187) lamps now used by the City in addition to those specified, and that the minimum number of lamps to be supplied shall at no time include the additional lamps in said locations.

This bid is made on the further condition that the minimum number of enclosed 6.6 ampere arc lamps in use by the City, under the control of the Superintendent of Lamps and Lighting, shall be at the beginning of the proposed contract one thousand one hundred and twenty-five (1,125) and of four ampere magnetite lamps, one thousand four hunder and seventy-one (1,471).

We bid on the further understanding that the minimum number of lamps of any one type shall not be less than ten (10).

We bid on the further understanding that the City shall pay the fair cost of moving any wires, poles or cables used for City lighting, or that may be ordered moved by the City. Changes in lamp locations exceeding ten (10) in any year shall be paid for by the City on the basis of a fair cost, at the date of the contract of the lines, poles and material abandoned, less the salvage.

It is further understood, as a condition of this bid, that the City shall furnish at its expense such recording ammeters and blank charts as may be required by the Company to comply with Section 33 of the specifications.

Respectfully submitted,

CONSOLIDATED GAS ELECTRIC LIGHT & POWER CO. OF BALTIMORE,

(Signed) HERBERT A. WAGNER, *Vice-President.*

EXHIBIT "A."

Attached to and Forming a Part of the Bid of the Consolidated Gas Electric Light and Power Company of Baltimore, Dated July 25, 1911, to the Board of Awards.

	All-Night.			Half-Night.		
	Underground.			Underground.		
	Including Duct Rental.	Less Duct Rental.	Overhead.	Including Duct Rental.	Less Duct Rental.	Overhead.
Arc Lamps.						
6.6 amp. constant current series enclosed arc lamps	$74 00	$66 00	$60 00	$64 00	$56 00	$50 00
6.6 amp. constant current series luminous arc lamps	99 00	91 00	85 00	87 00	79 00	73 00
4 amp. constant current series luminous arc lamps as per specifications	74 00	66 00	60 00	64 00	56 00	50 00
6.6 amp. constant current series flaming arc lamps	124 00	116 00	110 00	104 00	96 00	90 00
Single Incandescent Lamps.						
40 c. p. series 4 and 6.6 amp	36 00	26 00	20 00	32 50	22 50	16 50
60 c. p. series 4 and 6.6 amp	39 00	29 00	23 00	34 50	24 50	18 50
80 c. p. series 4 and 6.6 amp	45 00	35 00	29 00	39 00	29 00	23 00
100 c. p. series 4 and 6.6 amp	51 00	41 00	35 00	43 50	33 50	27 50
3-Light Incandescent Lamps.						
40 c. p. multiple	68 00	58 00	44 00	64 50	54 50	40 50
60 c. p. multiple	77 00	67 00	53 00	72 50	62 50	48 50
80 c. p. multiple	89 00	79 00	65 00	83 00	73 00.	59 00
100 c. p. multiple	103 00	93 00	79 00	95 50	85 50	71 50
5-Light Incandescent Lamps.						
40 c. p. multiple	100 00	90 00	68 00	96 50	86 50	64 50
60 c. p. multiple	115 00	105 00	83 00	110 50	100 50	78 50
80 c. p. multiple	133 00	123 00	101 00	127 00	117 00	95 00
100 c. p. multiple	155 00	145 00	123 00	147 50	137 00	115 50

In case of any 6.6 ampere constant current series enclosed arc lamp is abolished or displaced by any other type of lamp, there will be a charge of eighteen ($18) dollars for each such lamp displaced, in addition to the cost of making changes specified in Section 22 of these specifications.

The prices per lamp per year specified herein are based upon a one (1) year contract. The prices herein shall be reduced by two (2%) per cent. for a two (2) year contract, three (3%) per cent. for a three (3) year contract, and five (5%) per cent. for a five (5) year contract.

(Signed) HERBERT A. WAGNER, *Vice-President.*

CONTRACT.

THIS AGREEMENT, Made this thirteenth day of September, 1911, by and between the CONSOLIDATED GAS ELECTRIC LIGHT AND POWER COMPANY OF BALTIMORE, a corporation duly incorporated under the laws of the State of Maryland, hereinafter called the "Company," party of the first part, and the MAYOR AND CITY COUNCIL OF BALTIMORE, hereinafter called the "City," party of the second part.

WITNESSETH:

WHEREAS, The City heretofore advertised for bids for furnishing, operating and maintaining electric arc and incandescent lamps for lighting the streets, avenues, parks, squares, roads, bridges, docks, piers, lanes and alleys within the City of Baltimore, subject to all the conditions, covenants, stipulations, terms and provisions contained in certain specifications signed by Robert J. McCuen, Superintendent of Lamps and Lighting, and approved July 12, 1911, by James H. Preston, president of the Board of Awards, a copy of which specifications is hereto attached and in all respects made a part hereof; and

WHEREAS, The Company is engaged in the business of generating and selling electric energy and the Company duly submitted bids under said specifications subject to all conditions, covenants, stipulations, terms and provisions contained in said bid, a copy of which bid is hereto attached and in all respects made a part hereof; and

WHEREAS, The Board of Awards, at its meeting held on the sixth day of September, 1911, accepted the bid of the Company for furnishing, operating and maintaining electric arc and incandescent lamps, under said specifications for a term of one (1) year, beginning September 13, 1911, and awarded to the Company a contract for furnishing, operating and maintaining electric arc and incandescent lamps in accordance with said specifications and said bid for the following lamps, namely: Underground lamps, including duct rental and overhead lamps, but not underground lamps less duct rental; all-night and half-night lamps; 6.6 ampere constant current series enclosed arc lamps; 4 ampere constant current series luminous arc lamps (at the prices bid for 4 ampere lamps); single incandescent lamps, series 4 and 6.6 ampere; three and five light incandescent multiple lamps.

Now, therefore, In consideration of the premises and the covenants herein contained, the Company hereby agrees to furnish, operate and maintain electric arc and incandescent lamps for lighting streets, avenues, parks, squares, roads, bridges, docks, piers, lanes and alleys within the City of Baltimore, in accordance with the specifications

and bid hereto attached, for the term of one (1) year, beginning September 13, 1911, and to charge the City therefor at the prices specified in said bid for such term of one (1) year.

The City agrees to purchase from the Company for the term of one (1) year, beginning September 13, 1911, the service contemplated and specified in said specifications and said bid; and to pay the Company monthly therefor, on or before the fifteenth (15) day of each month, for all service furnished during the month next preceeding, at the prices specified in said bid for said term of one (1) year.

In Witness Whereof, The Company has caused these presents to be signed by its vice-president and its corporate seal, attested by its secretary, to be duly affixed hereto, and the City has caused these presents to be signed by the Mayor of Baltimore City and its corporate seal to be hereto affixed, attested by the City Register.

Consolidated Gas Electric Light & Power Co. of Baltimore,

(Signed) Charles M. Cohn, *Vice-President.*

Test as to Consolidated Gas Electric Light and Power Company of Baltimore:
Attest:

(Signed) William Schmidt, Jr.,
Secretary.

Witness as to the signatures of the vice-president and secretary of the Consolidated Gas Electric Light and Power Company of Baltimore:

(Signed) Alex. B. Evans.

(Signed) John Hubert,
Mayor of Baltimore, Ex Officio.

Attest:

(Signed) Richard Gwinn,
City Register.

Approved as to form and legal sufficiency:

(Signed) S. S. Field,
City Solicitor.

Approved:

(Signed) Robert J. McCuen,
Superintendent of Lamps and Lighting.

BOND.

KNOW ALL MEN BY THESE PRESENTS, That the CONSOLIDATED GAS ELECTRIC LIGHT AND POWER COMPANY OF BALTIMORE, a corporation duly incorporated under the laws of the State of Maryland, hereinafter called the "Principal," and the AMERICAN BONDING COMPANY OF BALTIMORE, a corporation created and existing under the laws of the State of Maryland, and whose principal office is located in Baltimore City, Maryland, and the NATIONAL SURETY COMPANY, a corporation duly incorporated under the laws of the State of New York, and whose principal office is located in New York City, New York, hereinafter called the "Sureties," are held and firmly bound unto the Mayor and City Council of Baltimore, hereinafter called the City, in the full and just sum of one hundred and eighty-two thousand ($182,000) dollars, to the payment of which said sum of money, well and truly to be made and done, and said Principal binds itself, its successors and assigns, and the said Sureties bind themselves, their successors and assign, jointly and severally, firmly by these presents.

SIGNED, sealed and dated this thirteenth day of September, A. D. 1911.

WHEREAS, The said Principal has entered into a certain written contract, bearing date the thirteenth day of September, A. D. 1911, with said City to furnish, operate and maintain electric arc and incandescent lamps for lighting the streets, avenues, parks, squares, roads, bridges, docks, piers, lanes and alleys for the term of one year, beginning September 13, 1911, upon certain terms and conditions in said contract more particularly mentioned and which contract is attached hereto and intended to be taken as a part hereof.

WHEREAS, It is one of the conditions of the award of the Board of Awards of the said City, pursuant to which said contract was entered into, that these presents should be executed.

Now, therefore, The condition of this obligation is such, that if the above bounden, the Consolidated Gas Electric Light and Power Company of Baltimore, shall comply in all respects with the terms

and conditions of said contract and its obligations thereunder, and shall indemnify and hold harmless the Mayor and City Council of Baltimore City against any and all claims which may be made by reason of any infringement of patent rights in the use of lamps, dynamos or any other article, apparatus or process, which may be used in operating or maintaining the lamps under the said contract; and shall also indemnify and hold harmless the Mayor and City Council of Baltimore City, its officers, agents or servants, and each and every one of them, against and from suits or actions of every name and description brought against the Mayor and City Council of Baltimore City, or any of its officers, agents or servants and also from all damages and costs to which it, they or any of them may be put by reason of injury to the person or property of another, resulting from negligence or carelessness in the performance of its obligations under this contract, or from failure on the part of the Principal to comply with any or all of the conditions of this contract, then this obligation to be void, otherwise to be and remain in full force and virtue in law.

In Witness Whereof, The said Consolidated Gas Electric Light and Power Company of Baltimore has caused these presents to be signed by its vice-president and its corporate seal, attested by its secretary, to be duly affixed hereto; and the said American Bonding Company of Baltimore has caused these presents to be signed by its vice-president and its corporate seal, attested by its assistant secretary, and the said National Surety Company of New York has caused these presents to be signed by its agent and attorney in fact and its corporate seal attested by its authorized witness to be duly affixed thereof.

CONSOLIDATED GAS ELECTRIC LIGHT & POWER CO. OF BALTIMORE,

(Signed) CHARLES M. COHN, *Vice-President.*

Attest:

(Signed) WILLIAM SCHMIDT, JR.,
Secretary.

Attest as to contractor:

(Signed) HARVEY L. JONES.

AMERICAN BONDING COMPANY,

(Signed) By MILLARD LEONARD,
Vice-President.

Attest:

(Signed) E. E. KOLB,
Assistant Secretary.

Attest as to surety:

(Signed) A. BRICKERD.

Approved as to form and legal sufficiency:

(Signed) S. S. FIELD,
City Solicitor.

NATIONAL SURETY COMPANY,

(Signed) S. HILLEN WACSHERNT,
Attorney in Fact.

Witness:

(Signed) THOMAS W. KERNAN,

Approved:

(Signed) JOHN HUBERT,
Mayor, Ex Officio.

Approved:

(Signed) W. S. CHILDS,
Deputy City Solicitor.

Approved:

(Signed) ROBERT J. McCUEN,
Superintendent of Lamps and Lighting.

Attest:

(Signed) ISAAC L. NEWMAN,
Deputy City Register.

SPECIFICATIONS

For Furnishing Incandescent Electric Current.

1. Bids will be received for furnishing incandescent electric current for use in all the public buildings of every kind and description owned by the City of Baltimore, in which buildings such current is now being used and in all other public buildings in which electric current may be used in the future; also in parks, squares, streets, avenues, alleys of the city, and in any other property coming under the jurisdiction of the Board of Park Commissioners.

2. Bids must be submitted in sealed envelopes, marked "Proposal for Furnishing Electric Current for Use in the Public Buildings Within the City of Baltimore, Parks, Squares, Streets, Avenues, Alleys of the City, and In Any Other Property Coming Under the Jurisdiction of the Board of Park Commissioners," and addressed to the Board of Awards, in care of J. Sewell Thomas, City Register, City Hall, Baltimore, Maryland, not later than 11 o'clock A. M., Wednesday, May 24, 1911.

3. Bids must be submitted for terms of one, two, three, five and ten years, service to each and every building and to the parks, squares, streets, avenues, alleys of the city and any other property under the jurisdiction of the Board of Park Commissioners; to begin as soon as practicable after the award of the contract, but not exceeding sixty (60) days thereafter.

If the contractor is not ready to supply current to each and every one of the places above numerated within the specified time, his contract shall be declared forfeited.

4. The Board of Awards reserves the right to reject any and all bids, or to award the contract solely for current for all municipal buildings and public places, other than those under the control of the Board of Park Commissioners.

Certified Check.

5. Each bidder must enclose with his bid his certified check for five hundred ($500) dollars on a clearing house bank, made payable to the order of the Mayor and City Council of Baltimore. The check of the successful bidder will be returned after the execution of the

contract and after a proper bond has been given for the faithful performance of the contract. If the bidder fails to furnish the bond as required by these specifications within ten (10) days after the award is made, the said check shall be forfeited to the city.

Bond.

6. The successful bidder will be required to give bond in the amount of the contract price, conditioned that he shall comply in all respects with the terms and conditions of the contract, and his obligations thereunder, including the specifications, and shall indemnify and save harmless said Mayor and City Council of Baltimore against or from all costs, expense, damages, injury or loss to which the said Mayor and City Council of Baltimore may be subjected by reason of any wrongdoing, misconduct, want of care or skill, negligence or default upon the part of the contractor, his agents or employees in or about the execution or performance of the contract, including said specifications, and shall save and keep harmless said Mayor and City Council of Baltimore against and from all claims or losses to it from any cause whatever, including patent infringements in the matter of furnishing said work and supplies.

Whenever the surety or sureties on the bond as furnished shall be deemed by the Mayor to be insufficient or unsatisfactory, the contractor, within ten days after notice to that effect, shall furnish and deliver a new bond to the Mayor and City Council of Baltimore, in the same penalty and on the same conditions, with surety satisfactory to the Mayor, and this duty shall continue on the part of the contractor whenever, and so often as, the Mayor shall require a new bond, with a satisfactory surety or sureties. If the contractor shall fail to furnish such bond within ten days after said notice mailed to his address, the Mayor and City Council of Baltimore, through its proper agent or agents, may stop all further work under said contract and relet the unfinished work at the expense of the contractor.

To prevent disputes and litigation, the Superintendent of Lamps and Lighting shall, in all cases, determine the amount, quality and acceptability of the work and supplies which are to be paid for under the contract; shall determine all questions in relation to said work and supplies, and the performance thereof, and shall, in all cases, decide every question which may arise relative to the fulfillment of the contract on the part of the contractor. His estimate and decision shall be final and conclusive, and in case any question shall arise

between the parties, touching the contract, such estimate and decision shall be a condition precedent to the right of the contractor to receive any moneys under the contract.

Should any question arise as to the true construction of this contract or of the specifications hereto attached, said questions shall be submitted to the Superintendent of Lamps and Lighting, whose decision thereon shall be final, binding and conclusive on all the parties.

This provision is in addition to and not in substitution for the preceding paragraph.

7. Bidders must agree to supply incandescent electric current continuously for the twenty-four hours of each and every day during the term of the contract.

The city is to furnish and maintain all equipment from the point of connection by the contractor, which shall be the building line of any building or other structure or the property line or boundary of any park or square, in which electric current may be used, except the meter or other device which may be installed for the benefit of the contractor.

8. In case of any instance wherein it may be or may become necessary for the contractor to install a transformer, frequency changer, rotary converter, motor generator or other translating apparatus in order to supply such incandescent electric current as may be required by the city, such device must be connected ahead of the meter, which is intended to measure the rectified current, and said meter is only to record the electric current used by the city after having been transformed or rectified.

9. The contractor must supply one meter for each installation, except in cases where more than one department occupies a building; then a meter must be connected to the wiring in each department, if it is so required.

10. Bids must be submitted for a price per kilowatt hour, with discounts, if any, for quantity consumed by meter measurement.

11. Bids must be submitted for current at a price per kilowatt hour on two propositions, namely: First, a price per kilowatt hour, without free renewal of lamps; second, a price per kilowatt hour, including free renewal of lamps.

12. Bidders must submit a price per kilowatt hour, based on a monthly lump consumption of approximately 90,000 kilowatt hours per month by the combined installations throughout the city.

13. Bidders must also submit a price per kilowatt hour, based on a monthly consumption of approximately 40,000 kilowatt hours for the City Hall and Court House; said bid to be made on two propositions, the same as specified in Section 11 of these specifications.

ROBERT J. MCCUEN,
Superintendent of Lamps and Lighting.

Approved: May 10, 1911.

J. BARRY MAHOOL,
President Board of Awards.

BID.

MAY 24, 1911.

To the Board of Awards, Baltimore, Md.

GENTLEMEN—Referring to specifications dated May 10, 1911, and entitled "Specifications for Furnishing Incandescent Electric Curent," which specifications are signed by Robert J. McCuen, Superintendent of Lamps and Lighting, and approved by J. Barry Mahool, President of Board of Awards, we hereby submit the following bids for furnishing electric current, for use in the public buildings owned by the City of Baltimore, for the term of one, two, three, five or ten years:

FOR CURRENT CONSUMED BY THE COMBINED INSTALLATIONS THROUGHOUT THE CITY.

No. 1, Without Free Renewals of Lamps.

For the first twenty thousand (20,000) kilowatt hours per month, 5.66 cents per kilowatt hour.

For the next twenty thousand (20,000) kilowatt hours per month, 4.66 cents per kilowatt hour.

For all over forty thousand (40,000) kilowatt hours per month, 3.66 cents per kilowatt hour.

No. 2, Including Free Renewals of Lamps.

The company will renew, at its own expense, all standard carbon filament lamps originally purchased from the company and returned with bulbs unbroken to its lamp room, that may be necessary for use in any of the buildings supplied with electric current under this classification.

For the first twenty thousand (20,000) kilowatt hourse per month, 6 cents per kilowatt hour.

For the next twenty thousand (20,000) kilowatt hours per month, 5 cents per kilowatt hour.

All over forty thousand (40,000) kilowatt hours per month, 4 cents per kilowatt hour.

For a consumption of fifteen thousand (15,000) kilowatt hours or more in one location, or for any one service, the consumption in such location being considered separately and not as in any way

forming a part of the general consumption in other city buildings; that is to say, such consumption shall not be included in the total consumption of city buildings for the purpose of determining the rates to be paid for such total consumption, as follows:

No. 3, without free renewal of lamps, 3 cents per kilowatt hour.

No. 4, including free renewal of lamps, 3.34 cents per kilowatt hour.

All of the above prices are conditioned upon the contractor being allowed to furnish at each of the said public buildings, at his option, either direct current or alternating current, as may be determined by the character of the contractor's general distribution system in the locality of such buildings.

Bills for service to be paid at the contractor's office on or before the fifteenth day of the month succeeding that in which the current was furnished.

In view of the bond required for the faithful performance of the terms of the contract and specifications, it is respectfully submitted and made a condition of this proposal that the following paragraphs of Section 6 be excluded from the specifications:

"To prevent disputes and litigation, the Superintendent of Lamps and Lighting shall, in all cases, determine the amount, quality and acceptability of the work and supplies which are to be paid for under the contract; shall determine all questions in relation to said work and supplies, and the performance thereof, and shall, in all cases, decide every question which may arise relative to the fulfillment of the contract on the part of the contractor. His estimate and decision shall be final and conclusive, and in case any question shall arise between the parties, touching the contract, such estimate and decision shall be a condition precedent to the right of the contractor to receive any moneys under the contract."

"Should any question arise as to the true construction of this contract or of the specifications hereto attached, said questions shall be submitted to the Superintendent of Lamps and Lighting, whose decision thereupon shall be final, binding and conclusive on all the parties."

Respectfully submitted,

CONSOLIDATED GAS ELECTRIC LIGHT & POWER CO. OF BALTIMORE,

(Signed) DOUGLASS BURNETT,
Manager Commercial Department, Electric Division.

CONTRACT.

THIS AGREEMENT, Made this first day of August, 1911, by and between the CONSOLIDATED GAS ELECTRIC LIGHT AND POWER COMPANY OF BALTIMORE, a corporation duly incorporated under the laws of the State of Maryland, hereinafter called the "Company," party of the first part, and the MAYOR AND CITY COUNCIL OF BALTIMORE, hereinafter called the "City," party of the second part.

WITNESSETH:

WHEREAS, The City heretofore advertised for bids for furnishing electric current for use in all public buildings, etc., in the City of Baltimore, subject to all conditions, covenants, stipulations, terms and provisions contained in certain specifications dated May 10, 1911, and signed by Robert J. McCuen, Superintendent of Lamps and Lighting, and approved by J. Barry Mahool, President of Board of Awards, a copy of which specifications is hereto attached and in all respects made a part hereof; and

WHEREAS, The Company is engaged in the business of generating and selling electric energy, and the Company duly submitted bids under said specifications, without and including free renewals of lamps, subject to all the conditions, covenants, stipulations, terms and provisiones contained in said bid, a copy of which is hereto attached and in all respects made a part hereof; and

WHEREAS, The bid of the Company under the specification and bid was accepted by the Board of Awards for the term of one year at its meeting held on the twenty-sixth day of July, 1911, including free renewals of standard incandescent lamps for current consumed by the combined installations throughout the city, and without free renewals of lamps in locations having a consumption of fifteen thousand (15,000) kilowatt hours or more per month.

Now, therefore, In consideration of the premises and the covenants herein contained, the Company hereby agrees to supply for the period of one year, beginning August 1, 1911, electric current for use of all the public buildings of every kind and description in the City of Baltimore, owned by the City (except buildings in parks, squares, streets, avenues, alleys of the City or any other property coming

under the jurisdiction of the Board of Park Commissioners, and which are at present or may in the future be covered by the present contract between the Company and the Board of Park Commissioners), in which buildings such electric current is now being used and in all other such public buildings in which electric current may be used in the future, in accordance with the specifications and bid hereto attached and to charge the City therefor at the prices specified in said bid, under the heading of "Including Free Renewals of Lamps."

The Company will renew, at its own expense, all standard carbon filament lamps originally purchased from the Company and returned to its lamp room with bulbs unbroken, that may be necessary for use in any of the buildings supplied with electric current under this contract, except the City Hall and Court House, and any other locations having a consumption of fifteen thousand (15,000) kilowatt hours or more per month.

The City agrees to purchase from the Company for the term of one year, beginning the first day of August, 1911, all the electric current used in all the public buildings of every kind and description in the City of Baltimore, owned by the City (except buildings in parks, squares, streets, avenues, alleys of the City or any property coming under the jurisdiction of the Board of Park Commissioners, and which are at present or may be in the future covered by the present contract between the Company and the Board of Park Commissioners), in which buildings electric current is now being used and in all other public buildings in which electric current may be used in the future under the specifications and bid above referred to and hereto attached.

Nothing in said specifications shall be construed to prohibit or prevent the Mayor and City Council of Baltimore city from contracting for or establishing, using and maintaining their own electric lighting system for the purpose of lighting the City Hall and Court House, and when the said Mayor and City Council shall provide its own electric lighting system, the Mayor may, upon ninety (90) days' written notice to the Company, terminate this contract, in so far as it applies to the City Hall and Court House.

In witness whereof, The Company has caused these presents to be signed by its Vice-President and its corporate seal, attested by its Secretary, to be duly affixed hereto, and the City has caused these presents to be signed by the Mayor of Baltimore city and its corporate seal to be hereto affixed, attested by the City Register.

CONSOLIDATED GAS ELECTRIC LIGHT & POWER CO. OF BALTIMORE,

(Signed) HERBERT A. WAGNER,
Vice-President.

Test as to the Consolidated Gas Electric Light and Power Company of Baltimore:

Attest:

(Signed) WM. SCHMIDT, JR.,
Secretary.

Witness as to the above signatures:

(Signed) DOUGLASS BURNETT.

(Signed) JAMES H. PRESTON,
Mayor of Baltimore City.

Attest:
(Signed) ISAAC L. NEWMAN,
Deputy City Register.

Approved as to form and legal sufficiency:

(Signed) EDGAR ALLAN POE,
City Solicitor.

Approved:

(Signed) ROBERT J. McCUEN,
Superintendent of Lamps and Lighting.

BOND.

KNOW ALL MEN BY THESE PRESENTS, That the CONSOLIDATED GAS ELECTRIC LIGHT AND POWER COMPANY OF BALTIMORE, a corporation duly incorporated under the laws of the State of Maryland, hereinafter called the "Principal," and the AMERICAN BONDING COMPANY OF BALTIMORE, a corporation created and existing under the laws of the State of Maryland, and whose principal office is located in Baltimore city, Maryland, hereinafter called the "Surety," are held and firmly bound unto the MAYOR AND CITY COUNCIL OF BALTIMORE, hereinafter called the "City," in the full and just sum of twenty-five thousand ($25,000) dollars, to the payment of which said just sum of money, well and truly to be made and done, the said Principal binds itself, its successors and assigns, and the said Surety binds itself, its successors and assigns, jointly and severally, firmly by these presents.

SIGNED, sealed and dated this first day of August, A. D. 1911.

WHEREAS, The said Principal has entered into a certain written contract, bearing date of first day of August, A. D. 1911, with said City for supplying, for the period of one year, beginning August 1, 1911, electric current for use in all the public buildings of every kind and description in the City of Baltimore, owned by the City (except buildings in parks, squares, streets, avenues, alleys of the City or any other property coming under the jurisdiction of the Board of Park Commissioners) upon certain terms and conditions in said contract more particularly mentioned and which contract is attached hereto and intended to be taken as a part hereof.

WHEREAS, It is one of the conditions of the Board of Awards of the City, pursuant to which said contract was entered into, that these presents should be executed.

Now, therefore, The condition of this obligation is such, that if the above bounden the Consolidated Gas Electric Light and Power Company of Baltimore shall comply in all respects with the terms and conditions of said contract and its obligations thereunder and shall indemnify and save harmless the said Mayor and City Council of Baltimore against any suit or suits, loss damage or expense to which the said Mayor and City Council of Baltimore may be subjected by reason of any default or negligence, want of skill or care on the part of the contractor, its agents or employees, in or about furnishing and delivering incandescent electric current and service over its lines up to the point of connection with the City's wiring and shall also indemnify and save harmless the said Mayor and City Council of Baltimore from any claim due to using any form of material, method of manufacture, machinery, process or composition

or thing, which is patented or claimed to be patented, then this obligation to be void, otherwise to be and remain in full force and virtue in law.

In witness whereof, The said Consolidated Gas Electric Light and Power Company of Baltimore has caused these presents to be signed by its Vice-President and its corporate seal, attested by its Secretary, to be duly affixed hereto, and the said American Bonding Company of Baltimore has caused these presents to be signed by its Vice-President and its corporate seal, attested by its Assistant Secretary, to be duly affixed hereto.

Consolidated Gas Electric Light & Power Co. of Baltimore,

(Signed) Herbert A. Wagner,
Vice-President.

Attest:

(Signed) Wm. Schmidt, Jr.,
Secretary.

Witness as to the above signatures:

(Signed) Douglass Burnett.

American Bonding Company of Baltimore,

(Signed) Millard Leonard,
Vice-President.

Test as to surety:

(Signed) James T. Wilson,
(Signed) A. Buckerd.

Attest:

(Signed) E. E. Kolb,
Assistant Secretary.

Approved:

(Signed) James H. Preston,
Mayor.

Approved:

(Signed) James F. Thrift,
City Comptroller.

Approved as to form and legal sufficiency:

(Signed) Edgar Allan Poe,
City Solicitor.

Approved:

(Signed) Robert J. McCuen,
Superintendent of Lamps and Lighting.

NOTICE TO BIDDERS

BALTIMORE, June 22, 1910.

The City of Baltimore invites bids for mantle gas and naphtha street lighting fixtures and maintenance for such public streets, avenues, lanes, alleys, parks, squares and bridges as may from time to time be designated by the Superintendent of Lamps and Lighting during the term of the contract, from March 1, 1911 in accordance with the requirements contained in the attached specifications.

Bids are to be based on furnishing approximately 7,500 gas lamps and 1,000 naphtha lamps.

The city will furnish the posts and lanterns and the supply of gas for the gas lamps.

Bidders will be required to estimate for furnishing all the lamp fixtures, including the posts and lanterns and the supply of gasoline necessary for operating the mantle naphtha lamps.

Bidders will be required to include and estimate for the labor necessary to operate and maintain the mantle street lighting.

Bidders will be required to submit two propositions, one for gas lighting and one for naphtha lighting, as set forth in Sections 1 and 2 of specifications, the two propositions going to make up one bid and to be awarded to one contractor.

Bids must be enclosed in sealed envelopes and marked, "Proposals for Gas and Naphtha Street Lamp Fixtures and Maintenance," and addressed to the Board of Awards, in care of J. Sewell Thomas, City Register, City Hall, Baltimore, Maryland, not later than 11 o'clock, A. M., Wednesday, July 6, 1910.

A certified check of the bidder on a clearing-house bank, for two thousand ($2,000) dollars, made payable to the order of the Mayor and City Council of Baltimore, must accompany each bid.

Said check to be forfeited to the city if, at the expiration of ten days after the award of the contract has been made, the contractor fails to execute said contract.

Bidders will be required to estimate for the labor necessary to operate the lamps and to keep the lamps in thorough repair.

Samples of the burners and the equipment to be furnished must be submitted with the bid.

The Board of Awards reserves the right to reject any or all bids.

ROBT. J. MCCUEN,
Superintendent of Lamps and Lighting.

Approved: June 22, 1910.

J. BARRY MAHOOL,
President Board of Awards.

SPECIFICATIONS

For Incandescent Gas and Naphtha Lighting Equipment and Maintenance.

1. Proposals will be received for mantle gas lighting equipment, which will include the furnishing and maintaining by the contractor of entirely new incandescent mantle burners, mantles, automatic regulators (if necessary), metal draught tubes and glass chimneys, street signs, globes and all other necessary fixtures, parts, appliances and supplies used for incandescent street gas lighting, except lamp posts and lanterns, as provided herein, which will be furnished by the city for all the gas lamps now in service in the public streets, avenues, lanes, alleys, parks and squares, and on the bridges within the City of Baltimore, and pro rata for such additional gas lamps as may be ordered to be installed by the Superintendent of Lamps and Lighting. All of said gas lamp fixtures must be attached to all city lamp posts by the contractor, in a proper manner, so as to occupy an upright position in a vertical central line with the lantern so that the products of combustion will pass directly through the opening in the deflector plate of the "Miner" type of lamp or in the centre of the crown of the "Boulevard" type of lantern. The city will furnish and pay for the necessary supply of gas.

The contractor must estimate to keep all of said incandescent gas lamp fixtures in thorough repair, replace all broken and cracked globes and parts and all broken and defective mantles at all times when found necessary, during the term of the contract

The mantle burners used during the term of this contract shall be thoroughly cleaned and free from all grease, dirt, filings or other obstructions. The gas mantle burners which are to be used in connection with this contract must be upright burners.

The contractor will be required to furnish at his own expense, all the labor that may be necessary to equip, repair, remove or transfer, paint, clean, light and extinguish the mantle gas lamps.

2. Proposals will be received also in connection with the foregoing for the operating and maintaining of naphtha, or gasoline street lamps, using incandescent mantle burners, which will include the furnishing by the contractor of iron lamp posts, lamps or lanterns (either globe

type or square frame) incandescent mantles, glass chimneys and draught tubes, globes, glass street signs and all necessary fixtures and appliances for operating these street lamps now in service within the City of Baltimore, and for all additional incandescent naphtha or gasoline street lamps, pro rata the contract price that may be ordered to be installed within the City of Baltimore by the Superintendent of Lamps and Lighting during the existence of this contract. The contractor who may secure the award of this contract will be required to furnish all the gasoline or naphtha necessary to supply each such naphtha lamp each night during the term of the contract with a sufficient quantity of gasoline or naphtha to insure the standard of light (not less than 55 candle power), required at all times during the hours of burning, which gasoline or naphtha must be of the very best grade and of a gravity of not less than seventy (70) degrees, free from water, gum, glue or other impurities. The contractor will be required to furnish at his own expense, all the labor that may be necessary to install, equip, repair, remove or transfer, paint, clean, light and extinguish these incandescent naphtha street lamps, and to perform any other work in connection with this character of street lighting.

3. Bids or estimates must be submitted according to the plans hereinafter specified, in sealed envelopes, marked "Proposals for Gas and Naphtha Street Lamp Fixtures and Maintenance" and addressed to the Board of Awards, in care of J Sewell Thomas, City Register, at the City Hall, Baltimore, Md., not later than 11 o'clock A. M., Wednesday, July 6, 1910.

4. All bids must contain two propositions namely: one for operating mantle gas lighting per lamp per year, as set forth in Section 1 herein, and one for mantle naphtha lighting per lamp per year, as set forth in Section 2 herein. The two propositions shall be considered together as going to make up one bid and not separately; the intent being to award the gas and naphtha street lighting contract to one contractor.

5. After the bids are opened by the Board of Awards, no bidder will be permitted to withdraw from the competition for this contract.

6. Bids or estimates must be submitted for terms of one, two and three years.

Certified Check Must Accompany Each Bid.

7. Each bidder must enclose with his bid his certified check of two thousand ($2,000) dollars, made payable to the Mayor and City Council of Baltimore. The check of the successful bidder will not be returned to him until he has entered into a formal contract with the

city and has given a satisfactory bond as a guarantee that the bidder will perform said contract according to the specifications and that he will properly perform the work required by the terms of these specifications. If the successful bidder fails to furnish the bond as required within ten days after the award of the contract has been made, the bidder's check shall be forfeited to the City of Baltimore.

Bond for Faithful Performance of Contract.

8. The successful bidder will be required to give bond in the amount of the contract price conditioned, that he shall comply in all respects with the terms and conditions of the contract, and his obligations thereunder, including the specifications, and shall indemnify and save harmless said Mayor and City Council of Baltimore, against or from all costs, expense, damages, injury or loss, to which the said Mayor and City Council of Baltimore may be subjected by reason of any wrongdoing, misconduct, want of care or skill, negligence or default upon the part of the contractor, his agents or employees in or about the execution or performance of the contract, including said specification,. and shall save and keep harmless said Mayor and City Council of Baltimore against and from all claims or losses to it from any cause whatever, including patent infringements in the matter of furnishing and maintenance of gas and naphtha street lamp fixtures.

9. To prevent disputes and litigations, the Superintendent of Lamps and Lighting shall in all cases determine the amount, quality and acceptability of the work which is to be paid for under the contract; shall decide all questions in relation to said work and the performance thereof, and shall in all cases decide every question which may arise relative to the fulfillment of the contract on the part of the contractor. His determination, decision and estimate shall be final and conclusive, and in case any question shall arise between the parties touching the contract, such determination, decision and estimate shall be a condition precedent to the right of the contractor to receive any moneys under the contract.

Penalty for Non-Performance of Contract.

10. Notwithstanding the provisions of paragraph nine of these specifications, if the contractor shall not well and truly observe, perform, fill, and keep all and singular the covenants and conditions hereinbefore and hereinafter mentioned and contained on its part to be observed and performed, fulfilled and kept according to the true intent and meaning of these specifications, then in that case the Mayor may so determine,

he may and shall have the power on the part of the City of Baltimore to declare this contract annulled and vacated, and thereupon it shall become and be thenceforth null and void.

Date When This Contract Shall Commence.

11. The present contract for the gas and naphtha lamp equipment, maintenance and operation, will expire February 28, 1911, and the contract awarded under these specifications for such fixtures and service shall begin March 1, 1911. All street lamps on the city streets, alleys and bridges and in the city parks and squares must be equipped in as reasonable time after the first day of March, 1911, as practicable, not to exceed thirty (30) days thereafter.

Contractor Must Perform All Work Promptly

12. Should the contractor fail to commence the work of equipping the gas and naphtha street lamps at or during the time specified or to operate, maintain, repair, paint, clean and fit up the lamps or to install new lamps or to do any work as specified hereinbefore or hereinafter, after due notice has been given, the Superintendent of Lamps and Lighting may and shall have the power to cause such work to be performed by other parties and to deduct the expenses thereof from any moneys which may be due or may become due the contractor and to hold the contractor and his sureties liable for the amount thereof which may be in excess of the price stipulated in this contract.

Assignment of Contract.

13. Any assignment of this contract or sub-letting of the work to be done under said contract shall be subject to the consent of the Superintendent of Lamps and Lighting and shall not otherwise be done. Bidders must show to the satisfaction of the Superintendent of Lamps and Lighting their ability to do the work specified.

Rights of the Board of Awards.

14. The Board of Awards reserves the right to reject any or all bids.

Equipment, Its Adjustment During the Term of Contract and Its Disposal at the Expiration of the Contract.

15. The contractor will be required to furnish incandescent mantle burners and all other lamp fixtures specified in "Sections 1 and 2" of these specifications, and also to furnish the lamps and lanterns for all

additional lamps for the streets, alleys, parks and squares and bridges that may be ordered to be installed by the Superintendent of Lamps and Lighting during the term of this contract, and all burners and other necessary lamp fixtures, furnished by the contractor and used by him in the operation of this contract, shall remain the property of the said contractor, but the City of Baltimore reserves the right to purchase the lamp fixtures, or any part thereof at the expiration of this contract, at the actual value at that time. At the completion of this contract all lamp fixtures owned by the contractor shall be removed by him, except such lamp fixtures, lamps, lanterns or globes that may be owned or purchased by the city, and the street lamps must be restored to the same condition in which the contractor found them at the beginning of the contract, without cost to the City of Baltimore, and the value of the lamp equipment at the expiration of the contract, should the city decide to purchase the same, shall be determined by the contractor, the Superintendent of Lamps and Lighting and by a third person, who shall be selected by the said contractor and the Superintendent of Lamps and Lighting, or by the Mayor, in case of their failure to select such third person within thirty days.

All Lamp Fixtures Must Be Latest Improved Pattern.

16. All burners, mantles, globes, appliances and fixtures furnished under this contract shall be of the latest improved pattern. Should it be found that any modern invention, improvement, alteration or change of any kind in lamp fixtures shall have been made or discovered during the progress of this contract whereby the light giving power of the lamps furnished under this contract may be increased or the ornamentation of the lamp equipment furnished under this contract may be improved, thereby adding to the efficiency of the service, then, in that case, the city through the Superintendent of Lamps and Lighting, shall have the power to order such inventions, improvements, changes or alterations, and any reasonable cost in addition to the existing contract price may be paid the contractor only upon the advice and consent of the Board of Awards.

Lamp Burners—"Pilot" or "By-Pass."

17. Should the contractor who may receive the award of this contract desire to use incandescent mantle burners with "Pilot" or "By-Pass" attachment by which the gas is burned during the day or continuously, then, in that case, it is distinctly understood that the contractor must be responsible and shall pay for the quantity of gas it shall be deter-

mined has been burned each month by the contractor for the use of such burners and attachments each day. The quantity of gas consumed by the "Pilot" light will be ascertained by the Superintendent of Lamps and Lighting by connecting a series of six lamps with one meter and the average consumption thus obtained shall form a basis for determining the quantity of gas consumed by all such "Pilot" or "By-Pass" burners during the day time or continuously, and each lamp having the "Pilot" light shall be adjusted to such a height that it will not be extinguished through the diminution of pressure or blown out when fixed in the lantern for street service and the total amount of gas so consumed by the "Pilot" or "By-Pass," on all the street lamps must be paid for by the contractor.

In case "Pilot" or "By-Pass" burners are used the contractor will be required to place them on all gas lamps in each lamp-lighter's district, including the three meter lamps. Should the contractor fail to equip all street gas lamps in each lamp-lighter's district, including the three meter lamps, with such burners, after notice from the Superintendent of Lamps and Lighting, a fine at the rate of twenty-five cents each lamp each night will be imposed upon the contractor for every lamp not so equipped.

The contractor will be required to adjust each "Pilot" burner on each street gas lamp so as to burn as nearly as possible the same amount of gas on each lamp.

Care of Lamp Burners.

18. Each incandescent mantle gas burner must be kept clear at all time so as to allow a free and unobstructed flow of gas and must be adjusted and regulated by the use of automatic regulators and governors, if found necessary, so as to produce a light equal in power to not less than fifty-five (55) candles, under varying pressure of gas above two inches during the hours of burning. The means used to regulate the supply of gas, the shutters used to regulate the supply of air, the tubes and all other attachments of the burners must be kept free from rust and corrosion so as to permit of being easily adjusted or regulated when found necessary to increase or diminish the consumption of the gas and the supply of air, as conditions may demand from time to time, to insure a perfect bunsen and to maintain the standard of light required at all times during each night.

Incandescent mantle naphtha burners must be properly regulated and kept clean so as to insure a light equal to not less than fifty-five (55) candle-power at all times during the hours of burning.

Incandescent Mantles.

19. All incandescent mantles to be used with an upright burner in the operation of this contract must be such as are best suited to the burners adopted. No incandescent mantle will be permitted to be used unless composed of the best material and standard weave not less than 2¾ inches in length, and of first-class quality in all respects. No incandescent mantle shall be allowed to be used by the contractor which will shrink beyond reasonable dimensions from its original size, and all broken, smoked or blackened, ragged or frayed mantles must be removed at once and must be replaced by new mantles by the contractor. A fine at the rate of double the contract price per lamp per night shall be imposed on the contractor each night for every lamp which contains a short mantle, or a mantle less than the specified size.

Wire Gauze Burner Heads.

20. The wire gauze heads shall be kept perfectly clean and shall be replaced with new ones whenever the wire gauzes shall become corroded from weather or other conditions or when destroyed by the action of the heat.

Lamp Chimneys and Draught Tubes.

21. The contractor will be required to equip all street lamps now in service and such additional street lamps that may be placed in service during the term of this contract with metal draught tubes and glass chimneys of the very best quality. The metal draught tubes shall be placed directly over the burner and mantle, the lower point of the tube to reach the top of each mantle, and the glass chimneys shall be placed around the burner and mantle.

Lamp Globes and Street Signs.

22. The lamp globes and lantern glass must be of good quality lead glass, free from all defects whatsoever and the contractor will be required to fit the globes and lantern glass properly at the bottom and top of the gas and naphtha lamp frames so that the burner and mantle will not be affected by the action of the wind or by bugs and insects, to the extent of reducing the standard of light required. All the globes, domes, lantern glass, lamps and street signs are to be kept in a perfectly clean condition so that the light of the lamps will be absorbed or obstructed as little as possible. The globes, domes, lantern glass and street signs are to be cleaned at least twice each week and oftener if directed by the Superintendent of Lamps and Lighting. A failure on

the part of the contractor to clean dirty or soiled globes, chimneys and domes, or to replace broken globes, broken, misplaced or missing street signs in a reasonable time *after his attention has been called to such conditions by the Superintendent of Lamps and Lighting,* will subject said contractor to a fine of twenty-five cents in each case, each time such failure occurs.

Candle Power Required and Tests to Be Made.

23. The contractor will be required to maintain in each street lamp with the use of an incandescent mantle burner and fixtures, a standard of light equal in power to not less than fifty-five (55) candles at all times during the hours of burning. A candle power shall be the intensity of light produced by the Standard sperm candle, consuming not less than one hundred and twenty (120) grains of wax per hour. The tests made in the laboratory, should it be decided to test by such method, shall be either by the standard candle system or by the "Harcourt Pentane Standard."

For the purpose of ascertaining whether or not the candle power required is being maintained at the proper standard the Superintendent of Lamps and Lighting shall have the right at all times to order photometric or other tests of the lamp burners and mantles, to be made in such manner as he may determine, both at the laboratory of the Department and in position as the lamps appear when in service on the streets, parks, squares and bridges, at which the contractor or his representative may be present.

When the test of the lamp burners and mantles, which shall be removed from the street lamps, are to be made at the laboratory, or elsewhere, the contractor will be notified so as to enable him to furnish burners and mantles to replace those removed for testing purposes. If the lamp burners and mantles so tested show a light less than fifty-five (55) candle power and the cause is found to be due to defective burners or mantles, or to a faulty equipment of any kind, or to any neglect of the contractor to regulate the burners and mantles properly, then in that case, a fine of fifty cents shall be imposed upon the contractor for every one of such defective lamp burners and mantles, which fine shall be deducted from any moneys which may be due the contractor by the city.

The tests shall be made as often as may be deemed necessary by the Superintendent of Lamps and Lighting.

Trial Tests.

24. The trial tests for the purpose of ascertaining the light-giving power and the general efficiency of the burners and mantles which may be submitted, which tests shall be made if found to be necessary, before the award of the contract is made, shall be made in such manner and at such place or places, as may be determined upon by the Superintendent of Lamps and Lighting. Any gas burner which shall fail under such test to produce a light equal in power to fifty-five (55) candles on a consumption of three (3) cubic feet of gas per hour, and any naphtha burner which shall fail to produce fifty-five (55) candle power shall be rejected and the bidder who may own such burner or burners shall be disqualified.

Consumption of Gas.

25. The contractor shall equip each street gas lamp with an incandescent mantle, burner and fixtures so combined and adjusted as to secure under all ordinary variations of gas pressure, a light equal in power to not less than fifty-five (55) candles, on a consumption of three (3) cubic feet of gas per hour, and the contractor will be required to pay for any quantity of gas burned in excess of three (3) cubic feet of gas per hour.

Time for Lighting and Extinguishing Street Lamps.

26. The street lamps must be lighted and extinguished strictly in accordance with the official schedules, or time table, issued and furnished by the Superintendent of Lamps and Lighting, which schedule or time table shall aggregate four thousand (4,000) burning hours per lamp per annum.

All street lamps must be lighted and extinguished one hour after the time specified to begin to light and extinguish. No street lamps shall be lighted or extinguished before the time specified to begin to light and extinguish.

In order that the Superintendent of Lamps and Lighting and his assistants may determine whether the lamps are lighted and extinguished in accordance with the official schedule or time table, hereinbefore mentioned, the contractor shall furnish the Superintendent of Lamps and Lighting with maps or lists showing the number and geographical location of each lamp in each lamp-lighter's district, and shall designate the particular lamp at which the lamp lighter commences to light, also the central lamp and the lamp at which each lamp lighter completes the lighting and extinguishing the lamps. The lamp lighter

shall begin and finish at the same lamps as are designated for beginning, centre and finishing the lighting, and the contractor shall notify the Superintendent of Lamps and Lighting of any change which may be made in the beginning, centre and finishing points on any lamp district during the term of this contract. A fine at the rate of double the amount of the contract price will be imposed on the contractor each night for every lamp not lighted within the hour from the time of beginning to light. The same penalty will be imposed for every lamp found extinguished before the time specified to begin to extinguish.

Arrangement of Lamp Lighter's District and the Order of Lighting and Extinguishing Meter Lamps.

27. Each lamp lighter's district throughout the city which may entirely consist of gas lamps, shall be arranged so as to include not less than three (3) meter lamps at substantially the beginning, centre, and end of each lamp-lighter's district. Should it be found necessary to rearrange any lamp lighter's district, the Superintendent of Lamps and Lighting must be notified of such rearrangement or change by the contractor, and thereupon, the city will bear the expense of removing the meter lamps to the new location necessary to maintain the positions above mentioned, and these meter lamps must be lighted and extinguished in the regular order in which they are arranged. The contractor will be required to regulate all meter lamp burners so that these lamps will at all times maintain the standard of light equal to that of the non-metered lamps. A fine of twenty-five cents will be imposed upon the contractor for every meter lamp which is found to be a dim light, or producing a less volume of light than is shown by non-metered lamps, which fine shall be deducted from the contractor's monthly payments.

Daily Reports.

28. The contractor shall daily, before 12 o'clock noon, submit a written report to the Superintendent of Lamps and Lighting, stating the number of lamps, and their location, which were not burning or defective during the preceding night, if any, and the cause thereof.

Penalty for Defective Street Lighting.

29. Any lamp that fails to burn continuously during the hours scheduled, or any lamp found to be defective in any manner, causing such lamp to fall below the standard of light required, which condition may be due to the carelessness, indifference or failure of the

contractor to observe or comply with the requirements and instructions contained in these specifications, and which impose upon the contractor the responsibility of maintaining the standard of light required at all times during each night, shall subject the contractor to a fine at the rate of double the amount of the contract price per lamp, per night, and all such fines shall be deducted each month from any money due the contractor by the city. Defective lights, which may result from any cause or condition over which the contractor or his agents or employees shall have no control, shall not be subject to a fine, but such conditions shall be determined by the Superintendent of Lamps and Lighting.

Repairs of Street Lamps to be Made by the Contractors.

30. The contractor shall, without extra pay, unless otherwise provided, replace all wrecked, broken or damaged lamp posts with new ones, repair all lamp posts, lanterns and lamps, straighten all leaning lamp posts, replace broken globes and broken or missing street signs with new ones, relay all side walks and replace the surface disturbed in erecting or moving street lamps, keep all lanterns, globes and sign frames in proper position, place all street signs so that all the letters forming the name of the street can be seen at all times, so that the lanterns or lamps and lamp posts will at all times present to the public a neat and attractive appearance, and in general maintain the street lighting plant in first-class condition. The repairs will include painting the lamp posts and lanterns once during the year, if found to be necessary. Painting will be done in a good and workmanlike manner, with paint of a color and quality to be determined by the Superintendent of Lamps and Lighting. The contractor will keep such of the city property that may be used in the operation of this contract in thorough repair, and shall deliver the same to the city at the expiration of the term of the contract in good order and condition. The work and repairs enumerated in this section must be done by the contractor in as reasonable time after the order has been given by the Superintendent of Lamps and Lighting as possible.

If the contractor shall fail to perform the work, repairs and maintenance, as specified in this section within ten days after being notified by the Superintendent of Lamps and Lighting, then the work set forth herein will be done by the City of Baltimore, under the supervision of the Superintendent of Lamps and Lighting, and the cost of the work shall be deducted from any moneys that may be due the contractor by the city.

Wrecked Street Lamps.

31. The contractor will be required to re-erect all street lamps and lamp posts that may be wrecked or broken down by runaway teams or through any other kind of accident or cause, and all the lamp fixtures including the lamp posts and the labor necessary in erecting the new lamp and post in place of the wrecked or broken lamp and post must be furnished the city by the contractor at his own expense. Such lamp and fixtures will become the property of the city.

The contractor shall be allowed to collect the actual amount of the expense involved from the person or persons who may have wrecked or broken any street lamps, or whose agents, employees or servants may have wrecked or broken any street gas or naphtha lamp.

Discontinued Gas and Naphtha Lamps.

32. The Superintendent of Lamps and Lighting reserves the right to discontinue any street gas lamp, provided the total number be not reduced below 6,700 street gas lamps, also to discontinue the service of any naphtha lamps, provided the number be not reduced below 400.

Change of Location of Street Gas Lamps.

33. When notified to do so by the Superintendent of Lamps and Lighting, the contractor will change the location of any street lamp, taking it down and erecting again as directed.

Labor to Be Employed.

34. The contractor shall give preference in employment, first to the citizens of the City of Baltimore, second to the citizens of the State of Maryland, and no workman, laborer or mechanic shall be required to labor more than eight hours in one calendar day.

And it is distinctly understood and agreed that under no circumstances shall minors be employed in connection with the work of this contract, nor shall minors be permitted to assist any workmen having charge of any part of the work of this contract, see also Chapter 85 of the Acts of 1908, and Chapter 94 of the Acts of 1910.

Any violation of the requirements of this section will work a forfeiture of this contract.

ROBERT J. MCCUEN,
Superintendent of Lamps and Lighting.

Approved: June 22, 1910.

J. BARRY MAHOOL,
President of the Board of Awards.

CONTRACT.

THIS CONTRACT, Made this twenty-third day of July, in the year 1910, by and between THE AMERICAN STREET LIGHTING COMPANY, of Delaware, a private corporation, hereinafter called the Lighting Company, and the MAYOR AND CITY COUNCIL OF BALTIMORE, a municipal corporation, hereinafter called the City.

WHEREAS, The contract for lighting the streets, avenues, lanes, alleys, squares, parks and bridges in Baltimore City for a period of one year and nine months, accounting from the first day of March, in the year 1911, in accordance with paragraphs one and two of the specifications for incandescent gas and naphtha lighting equipment and maintenance, a copy of which is hereto attached, and in all respects made a part hereof, and subject to all the conditions, covenants, stipulations, terms and provisions, contained in said specifications, has recently been awarded to the Lighting Company by the City, through the agency of its Board of Awards, at and for the sum of ten dollars ($10) per lamp per annum for the gas lamps, and, at and for the sum of twenty-four dollars ($24) per lamp per annum for the naphtha lamps; and

WHEREAS, It was one of the conditions of said award that a formal contract should be executed by and between the Lighting Company and the City, evidencing the terms of said award.

Now, therefore, This contract witnesseth, That the Lighting Company doth hereby covenant and agree with the City that it will well and faithfully light the streets, avenues, lanes, alleys, squares, parks and bridges in Baltimore City, as the same are set forth in said specifications, and in accordance with each and every one of the conditions, covenants, stipulations, terms and provisions contained in said specifications, at and for the respective rates of compensation per lamp per annum hereinbefore mentioned, for the period of one year and nine months, accounting from the first day of March, in the year 1911, and that it will well and faithfully comply with and perform each and every obligation imposed upon it by said specifications, or the terms of said award.

And, The City doth hereby covenant and agree with the Lighting Company, that it will pay to the Lighting Company the respective rates of compensation per lamp per annum hereinbefore mentioned in monthly installments, adjusted with reference to the number of lamps in actual use during the several months of said period of one year and nine months accounting from the first day of March, in the year 1911, and that it will

well and faithfully comply with and perform, each and every obligation imposed upon it by said specifications, or the terms of said award.

In witness whereof, The Lighting Company has caused these presents to be signed by its President, and its corporate seal to be hereunto affixed, duly attested by its Secretary, and the City has caused these presents to be signed by the Mayor of Baltimore City, and the corporate seal of the City to be hereunto affixed, duly attested by the City Register.

The American Street Lighting Company,

E. S. Newbold,
President.

Attest:

Neilson Poe.

Attest:

Geo. P. Ney,
Secretary.

[seal.]

Approved:

J. Barry Mahool,
Mayor of Baltimore City.

Attest:

J. Sewell Thomas,
City Register.

Approved as to form and legal sufficiency:

Edgar Allan Poe,
City Solicitor.

BOND.

KNOW ALL MEN BY THESE PRESENTS, That we, the AMERICAN STREET LIGHTING COMPANY, a corporation created under the laws of the State of Delaware, with its principal place of business in the City of Baltimore, Maryland, and the NATIONAL SURETY CO., a corporation created and existing under the laws of the State of New York, with its principal office in the City of New York, N. Y., are held and firmly bound unto THE MAYOR AND CITY COUNCIL OF BALTIMORE, in the full and just sum of one hundred and five thousand ($105,000) dollars, lawful money of the United States, to be paid to the said Mayor and City Council of Baltimore, or their certain attorneys, to which payment well and truly to be made and done we bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, The above bounden American Street Lighting Company has entered into a contract with the said Mayor and City Council of Baltimore, bearing even date herewith, for lighting the streets, lanes, alleys, squares, parks and bridges in Baltimore City for a period of one year and nine months, accounting from the first day of March, in the year 1911, upon certain terms and conditions, in said contract more particularly mentioned; and

WHEREAS, It was one of the conditions of the award of the Board of Awards of said Mayor and City Council of Baltimore, pursuant to which said contract was entered into, that these presents should be executed.

Now, therefore, The condition of this obligation is such, that if the above bounden American Street Lighting Company shall, in all respects comply with the terms and conditions of said contract and its obligations thereunder, including the specifications therein referred to, and made a part thereof, and shall indemnify and save harmless the said Mayor and City Council of Baltimore against or from all costs, expense, damages, injury, or loss to which the said Mayor and City Council of Baltimore may be subjected by reason of any wrong-doing, misconduct, want of care or skill, negligence, or default, upon the part of the said American Street Lighting Company, its agents or employees in or about the execution or performance of said contract, including said specifications, and shall save and keep harmless the said Mayor and City Council of Baltimore against and from all claims or losses to it from any cause whatsoever, including patent infringements in the matter

of furnishing and maintenance of gas and naphtha street lighting and fixtures, then this obligation to be void; otherwise to be and remain in full force and virtue in law.

IN TESTIMONY WHEREOF, The said American Street Lighting Company has caused these presents to be sealed with its corporate seal, attested by the signature of its duly authorized officers, and the said National Surety Company has caused these presents to be sealed with its corporate seal, duly attested by its authorized officers, this twenty-third day of July, A. D., 1910.

AMERICAN STREET LIGHTING COMPANY,

By E. S. NEWBOLD,
President.

GEO. P. NEY,
Secretary.

[SEAL.]

Witnesses:

NEILSON POE,
GEO. C. BENDER, Attest.

NATIONAL SURETY COMPANY,
By LEONARD DAMMANN,
Vice-President.

HOWARD ABRAHAMS,
Assistant Secretary.

[SEAL.]

Witnesses:

CHAS. J. KOCH,
JAMES F. MCKENNA, Attest.

Approved as to form and legal sufficiency:

EDGAR ALLAN POE,
City Solicitor.

Approved:

J. BARRY MAHOOL,
Mayor.

J. W. FREEMAN,
Deputy City Comptroller.

[SEAL.]

SPECIFICATIONS

For Furnishing Illuminating Gas for All the Gas Lamps Used by the City in Lighting the Streets, Avenues, Lanes, Alleys, Bridges, Public Parks, Squares and Places, and for Use in Lighting the Public Buildings Within the City of Baltimore.

1. Bids will be received for furnishing illuminating gas for all the street and outdoor lamps operated by the city under the incandescent mantle system which are now in service, and which may hereafter be placed in service, and for lighting all the public buildings within the city of Baltimore, under the following conditions:

2. Bids must be submitted in sealed envelopes marked "Proposals for Furnishing Illuminating Gas for the City Street and Outdoor Gas Lamps, and for Use by the City in All Public Buildings Within the City of Baltimore," and addressed to the Board of Awards, in care of Mr. J. Sewell Thomas, City Register, at City Hall, Baltimore, Md., not later than 11 o'clock A. M., Wednesday, February 15, 1911.

3. Bids must be submitted for terms of one, two, three and five years, beginning March 1, 1911.

Certified Check.

4. Each bidder must enclose with his bid or estimate his certified check for five hundred ($500.00) dollars, made payable to the order of the Mayor and City Council of Baltimore. The check of the successful bidder will be returned after the execution of the contract and after a proper bond has been given for the faithful performance of the contract. If the bidder fails to furnish the bond as required by these specifications within ten (10) days after the award is made, the said check shall be forfeited to the city.

Bond for Faithful Performance of Contract.

5. Bond in the amount of the contract price will be required upon the award of the contract conditioned for the faithful performance of each and every one of the terms of the contract to be performed by the contractor as herein specified, and the contractor by said bond shall indemnify and hold harmless the Mayor and City Council of Baltimore

city, its officers, agents and servants, each and every one of them, against and from all suits and actions of every name and description brought against the Mayor and City Council of Baltimore city, or any of its officers, agents or servants, arising out of the execution and performance by it of said contract and also from all damages and costs to which it, they or any of them may be put by reason of injury to the person or property of another, resulting from negligence or carelessness in the performance of the contractor's obligations under this contract or from any accident of any kind caused by an explosion of gas resulting from a leak in the contractor's service pipes, which extend from the contractor's mains to the base of each lamp post, or in the riser pipe, which extends from the base of each lamp post to the burner at the top, or from failure on the part of the contractor to comply with any or all of the conditions of these specifications, or from any act or omission of said contractor or its agents, or from claims based on patents or alleged patents.

Wherever any material, process, composition or thing, called for by these specifications, is covered by letters patent, the successful bidder must secure, before using or employing such material, process, composition or thing, the assent, in writing, of the owner or licensee of such letters patent, and file the same with the Superintendent of Lamps and Lighting.

Whenever the surety or sureties on the bond so furnished shall be deemed by the Mayor to be insufficient or unsatisfactory, the contractor, within ten days after notice to that effect, shall furnish and deliver a new bond to the Mayor and City Council of Baltimore, in the same penalty and on the same conditions, with surety satisfactory to the Mayor, and this duty shall continue on the part of the contractor, whenever and so often as the Mayor shall require a new bond with a satisfactory surety or sureties. If the contractor shall fail to furnish such bond within ten days after said notice mailed to his address, the Mayor and City Council of Baltimore, through its proper agent or agents, may stop all further work under said contract and relet the unfinished work at the expense of the contractor.

To prevent disputes and litigations, the Superintendent of Lamps and Lighting shall in all cases determine the amount, quality and acceptability of the work and supplies which is to be paid for under the contract; shall determine all questions in relation to said work and supplies, and the performance thereof, and shall in all cases decide every question which may arise relative to the fulfillment of the contract on the part of the contractor. His estimate and deci-

shall be final and conclusive, and in case any question shall arise between the parties touching the contract, such estimate and decision shall be a condition precedent to the right of the contractor to receive any moneys under the contract.

Should any questions arise as to the true construction of this contract, or of the specifications hereto attached, said questions shall be submitted to the Superintendent of Lamps and Lighting, whose decision thereon shall be final, binding and conclusive on all the parties. This provision is in addition to, and not in substitution for the preceding paragraph.

Power of Board of Awards.

6. The Board of Awards reserves the right to reject any or all bids.

Plan of Bids to Be Submitted.

7. Bidders will be required to submit separate bids according to the following plans:

(*a*) State in the bid the price of gas to be consumed by each lamp per annum, each lamp not to exceed four thousand (4,000) burning hours in any one year, or to burn more than two and one-half (2½) cubic feet of gas in any one hour.

(*b*) State in the bid the price of gas to be consumed by each lamp per annum, each lamp not to exceed four thousand (4,000) burning hours in any one year, or to burn more than three (3) cubic feet of gas in any one hour.

(*c*) State in the bid the price of gas per one thousand cubic feet, based upon a total annual consumption of gas of about 10,000,000 cubic feet, which shall include the gas consumed in the City Hall, Court House, City Hall Annex, all the Public School Houses, Market Houses, Engine Houses, Police Station Houses and Halls, and in other public buildings or places within the City of Baltimore in which gas is used and for which the city pays.

If at any time during the continuance of the contract to be awarded under these specifications, the price of gas should be reduced, either voluntarily by the contractor, or by the Public Service Commission, below the price at which the contract is awarded, then the City shall pay the contractor such reduced price only.

Excess Gas Burned to Be Paid for in Proportion to Contract Price Per Annum.

8. Any quantity of gas that it shall have been determined has been burned by the city street gas or outdoor lamps during any one month, in excess of the quantity contracted for by the city, the contractor will be paid for such excess quantity of gas, so burned, at a rate in proportion to the contract price per lamp per annum.

Penalty for Failure to Supply Gas to Any Street Lamp.

9. The contractor will be required to furnish the necessary supply of gas at the burner for all street and outdoor gas lamps now in service, or which may hereafter be placed in service, each and every night during the existence of this contract, the quality of gas to conform in all respects to the standard required by the ordinance of the Mayor and City Council of Baltimore and to be delivered at a pressure, if possible, not less than two (2) inches and free from undue or violent fluctuations, and in the event of any failure to furnish a free and unobstructed flow of gas to any one or more of the street or outdoor lamps during one or more nights during the term of this contract, a deduction shall be made from the monthly bills of the contractor for each and every one of such lamps not so supplied with gas at a rate in proportion to the contract price per lamp per night, unless such failure be due to no fault of the contractor.

Cost of New Service Connections.

10. The contractor will be required to make service connections from the gas main pipes to such additional street and outdoor gas lamps as may hereafter be ordered to be erected by the Superintendent of Lamps and Lighting, the city agreeing to pay the actual cost for material and labor used in connecting each lamp by the contractor; this payment to cover the cost of laying the service pipes and making the connections from the gas mains to the lamps to the point of burning.

Changes of Locations of Street Lamps.

11. The contractor will be required to make such changes of locations of street lamps and alterations in the service pipes or connections supplying with gas the gas lamps now in service and which may hereafter be placed in service, as may be ordered by the Superintendent of Lamps and Lighting, and the actual cost only of making all such changes or

alterations will be paid to the said contractor by the city. The contractor will be required to place and connect the meters for all new or additional meter lamps.

Service Pipes to Be Kept in Good Condition—Damaged Service Pipes

12. The contractor will be required to keep his or their supply pipes, or service connections, running from the contractor's main pipes to the city street or outdoor gas lamps up to the burners in good condition and in thorough repair, and as far as possible free from water and other obstructions, so as to permit an unobstructed flow of gas at all times to each lamp burner under the full pressure as provided, as well as to guard against accidents of any kind that may result from an explosion of gas due to leaks or to defective service pipes. Should any of the supply pipes or service connections become damaged or disconnected in any manner so as to interfere with a free and unobstructed flow of gas as provided, the contractor shall make all the necessary repairs as promptly as possible without cost to the city. If such damage be done by the city or any of its agents or employees, the contractor will be required to make the necessary repairs and the actual cost of making such repairs will be paid by the city.

Gas Burned to Be Determined by Meter Lamps.

13. The quantity of gas consumed by the street gas lamps and in the city buildings mentioned herein shall be determined by meter measurement, in accordance with the provisions of the City Charter and ordinances of the City Council relating thereto. The meters for the city buildings shall be located and connected in the manner in general use; the meters for the street lamps shall be placed in approximately the first, centre and last lamps in each lamp lighter's district, the average of which shall determine the basis of consumption of gas for all other street gas lamps.

Lamplighters' Routes.

14. The contractor will be furnished by the city with an accurate description of the lamplighters' routes and the order followed in lighting and extinguishing the lamps, which lamps shall be lighted and extinguished in the order given.

Right of Access to Lamps and Posts.

15. The contractor will be given access to the lamps and lamp posts at all times, in company with a representative of the city, who is to be assigned to that work within three days after written notice to the

effect that the contractor desires said access has been given by the contractor to the Superintendent of Lamps and Lighting; that the contractor at no other times, in no other manner and under no other circumstances, will have access to said lamps and lamp posts, except when connecting service pipes with new or additional street lamps, or when making necessary repairs to service pipes, or when cleaning stopped or frozen pipes. The contractor may make such tests as may be necessary to determine the consumption of gas by the lamp burners, but such tests shall in no event and under no circumstances be used in ascertaining the consumption of gas by the city; the method of ascertaining the consumption of gas by the city being exclusively provided for and determined in Section 13 of these specifications.

To Be Governed in Work by Ordinances and Acts.

16. The contractor will be governed in the installation, transfer and repair of all street gas lamps in accordance with existing ordinances of the Mayor and City Council and any Acts of the Legislature bearing upon such work.

To Be Paid in Monthly Installments.

17. The contractor will be paid by the city for the gas supplied by said contractor at the contract rate in monthly installments, adjusted according to the number of street lamps in actual use.

ROBERT J. McCUEN,
Superintendent of Lamps and Lighting.

Approved: February 1, 1911.

J. BARRY MAHOOL,
President Board of Awards.

PROPOSAL.

February 15, 1911.

Honorable Board of Awards,

Care of J. Sewell Thomas, *City Register,*

City Hall, Baltimore, Md.

Gentlemen—It is hereby proposed to furnish illuminating gas for all the street and outdoor gas lamps operated by the Mayor and City Council of Baltimore under the incandescent mantle system, which are now in service and which may hereafter be placed in service, and for lighting all of the public buildings of the Mayor and City Council within the City of Baltimore.

It is hereby proposed to furnish illuminating gas for all the street and outdoor gas lamps, now in service and which may be hereafter placed in service, operated by the city under the incandescent mantle system, along the lines of the company's mains for a period of one, two, three or five years, beginning March 1, 1911, for seven dollars ($7.00) per lamp per year, each lamp not to exceed four thousand (4,000) burning hours per year, or to burn more than two and one-half (2½) cubic feet of gas in any one hour. In case the consumption of gas exceeds the quantity stipulated, the excess gas will be charged for at the rate of seventy cents (70c.) per one thousand cubic feet.

In connection with the furnishing of illuminating gas for all the street and outdoor gas lamps, as above, it is also hereby proposed to furnish illuminating gas for use in the City Hall, Court House, City Hall Annex, all the public school houses, market houses, engine houses, police station houses, and halls and all other public buildings or places of the Mayor and City Council of Baltimore along the lines of the company's mains at the rate of eighty cents (80c.) per thousand cubic feet.

The above proposal is made in response to the specifications dated February 1, 1911, of Robert J. McCuen, Esq., Superintendent of Lamps and Lighting, and with the understanding that the following provisions in the existing contract for the supply of gas, dated May 16, 1908, which provisions were incorporated after a full discussion, be included in and made a part of the contract arising out of the present proposal.

The city further covenants and agrees that it will maintain a meter post at substantially the beginning, center and end of each lamp

lighter's route, and in case any routes are changed during the life of this agreement, the necessary changes will be made in the meter posts, so that a meter will always be at substantially the beginning, middle and end of each route.

The city further covenants and agrees that it will give the employees of the Gas and Electric Company access to the burners, lamps and lamp posts at all times in company with a representative of the city, who is to be assigned to that work within three days after written notice to the effect that the company desires said access has been given by the Gas and Electric Company to the Superintendent of Lamps and Lighting; that the Gas and Electric Company, at no other times, in no other manner, and under no circumstances, will have access to said burners, lamps and lamp posts, except when connecting service pipes with new or additional street lamps, or when making necessary repairs to service pipes, or when cleaning stopped or frozen pipes; that said employees may make such tests as may be necessary to determine the consumption of gas by said burners, but such tests shall in no event and under no circumstances be used in ascertaining the consumption of gas by the city, the method of ascertaining the consumption of gas by the city being exclusively provided for and determined in the specifications; that the city will use every effort to keep the rate of gas consumption of the burners on the lamps provided with meters uniform with the consumption of the burners on the lamps not so provided.

It is understood, however, that the city's claim that the Gas and Electric Company is the owner of the service pipes connecting the Gas and Electric Company's mains with the city's lamp posts or other street or outdoor lamps is not admitted by the Gas and Electric Company, but, on the contrary, is disputed by it; and that nothing in the specifications, bid or this contract is intended to affect the question of the true ownership of said pipes, or to be construed as any admission on the part of the Gas and Electric Company that it is the owner of such service pipes. The foregoing, however, is not intended to impair or lessen in any way any obligation imposed upon the Gas and Electric Company by the specifications as to said pipes, irrespective of the question of ownership.

It is also further understood, that the Gas and Electric Company shall make no charges for disconnecting a lamp and lamp post which are not used until said lamp and lamp post are removed from the location where they are standing at the time of such discontinuance, upon the order of the Superintendent of Lamps and Lighting.

It is understood and agreed that the cost provided for in Section 10 of the specifications includes the cost of excavating, refilling and repaving.

It is understood that the Gas and Electric Company is not responsible for the condition of the city's piping to its own lamps on the bridges, in the columns and arms, the property of the city, which supply with gas the cluster lamps at the Mt. Royal entrance to Druid Hill Park, or in the arms which are attached to the top of each of the city lamp posts of the other cluster lamps used by the city, which arms are the property of the American Street Lighting Company.

In view of the bond required for the faithful performance of the terms of the contract and specifications, it is respectfully submitted and made a condition of this proposal that the following paragraphs of Section 5 be excluded from the specifications:

To prevent disputes and litigations, the Superintendent of Lamps and Lighting shall in all cases determine the amount, quality and acceptability of the work and supplies which is to be paid for under the contract; shall determine all questions in relation to said work and supplies, and the performance thereof, and shall in all cases decide every question which may arise relative to the fulfillment of the contract on the part of the contractor. His estimate and decision shall be final and conclusive, and in case any question shall arise between the parties touching the contract, such estimate and decision shall be a condition precedent to the right of the contractor to receive any moneys under the contract.

Should any question arise as to the true construction of this contract, or of the specifications hereto attached, said questions shall be submitted to the Superintendent of Lamps and Lighting, whose decision thereon shall be final, binding and conclusive on all parties. This provision is in addition to, and not in substitution for, the preceding paragraph.

Respectfully submitted,

CONSOLIDATED GAS ELECTRIC LIGHT & POWER CO. OF BALTIMORE,

(Signed) By CHARLES M. COHN,
Vice-President.

CONTRACT.

THIS CONTRACT, made this 3rd day of April, in the year 1911, by and between THE CONSOLIDATED GAS ELECTRIC LIGHT AND POWER COMPANY OF BALTIMORE, a corporation duly incorporated under the laws of the State of Maryland, hereinafter called the "GAS AND ELECTRIC COMPANY," party of the first part, and the MAYOR AND CITY COUNCIL OF BALTIMORE, a municipal corporation, hereinafter called the "CITY," party of the second part.

WHEREAS, The City heretofore advertised for bids for furnishing illuminating gas for all the gas lamps used by the City in lighting the streets, avenues, lanes, alleys, bridges, public parks, squares and places, and for use in lighting the public buildings within the City of Baltimore, subject to all of the conditions, covenants, stipulations, terms and provisions contained in certain specifications, a copy of which is hereto attached, and in all respects made a part hereof; and

WHEREAS, The Gas and Electric Company duly submitted a bid therefor, subject to all of the conditions, covenants, stipulations, terms and provisions contained in said bid, a copy of which is hereto attached, and in all respects made a part hereof; and

WHEREAS, Said bid was duly accepted and the contract for furnishing illuminating gas duly awarded to said Gas and Electric Company, said contract to run for a period of one year, counting from the first day of March, 1911, and ending on the first day of March, 1912; and

WHEREAS, It was one of the conditions of said award that a formal contract should be executed by and between the said Gas and Electric Company and the City evidencing the terms of said award.

Now, Therefore, This Contract Witnesseth: That the said Gas and Electric Company doth hereby covenant and agree with the City that it will well and faithfully furnish the said illuminating gas for all the gas lamps used by the City in lighting the streets, avenues, lanes, alleys, bridges, public parks, squares and places along the line of its mains, and for use in lighting the public buildings along the line of its mains, within the City of Baltimore, in accordance with each and every one of the conditions, covenants, stipulations, terms and provisions contained in said specifications, bid and award, and will well and faithfully comply with and perform each and every obligation imposed upon it by said specifications, bid and award.

The City doth hereby covenant and agree with the Gas and Electric Company that it will make payment to the said Gas and Electric Company for the said illuminating gas so used strictly in accordance with the terms of said specifications, bid and award, and that it will well

and faithfully comply with and perform each and every obligation imposed upon it by said specifications, bid and award.

The City doth further covenant and agree that it will furnish to the Gas and Electric Company an accurate description of the lamp lighter's routes and the order followed in lighting and extinguishing the lamps, and that the lamps shall be lighted and extinguished in the order given.

The City further covenants and agrees that it will maintain a meter post at substantially the beginning, center and end of each lamp lighter's route, and in case any routes are changed during the life of this agreement, the necessary changes will be made in the meter posts, so that a meter will always be at substantially the beginning, middle and end of each route.

The City further covenants and agrees that it will give the employees of the Gas and Electric Company access to the burners, lamps and lamp posts at all times, in company with a representative of the City, who is to be assigned to that work within three days after written notice to the effect that the Company desires said access has been given by the Gas and Electric Company to the Superintendent of Lamps and Lighting; that the Gas and Electric Company at no other times, in no other manner and under no other circumstances, will have access to said burners, lamps and lamp posts, except when connecting service pipes with new or additional street lamps, or when making necessary repairs to service pipes, or when cleaning stopped or frozen pipes; that said employees may make such tests as may be necessary to determine the consumption of gas by said burners, but such tests shall in no event and under no circumstances be used in ascertaining the consumption of gas by the City, the method of ascertaining the consumption of gas by the City being exclusively provided for and determined in the specifications; that the City will use every effort to keep the rate of gas consumption of the burners on the lamps provided with meters uniform with the consumption of the burners on the lamps not so provided.

It is understood, however, that the City's claim that the Gas and Electric Company is the owner of the service pipes connecting the Gas and Electric Company's mains with the City's lamp posts or other street or outdoor lamps is not admitted by the Gas and Electric Company, but, on the contrary, is disputed by it; and that nothing in the specifications, bid or this contract is intended to affect the question of the true ownership of said pipes, or to be construed as any admission on the part of the Gas and Electric Company that it is the owner of such service pipes. The foregoing, however, is not intended to impair or lessen in any way any obligation imposed upon the Gas and Electric Company by the specifications as to said pipes, irrespective of the question of ownership.

And it is also further understood that the Gas and Electric Company shall make no charges for disconnecting a lamp and lamp post which are not used until said lamp and lamp post are removed from the location where they are standing at the time of such discontinuance, upon the order of the Superintendent of Lamps and Lighting.

It is understood and agreed that the cost provided for in "Section 10," of the specifications, includes the cost for excavating, refilling and repaving.

It is understood that the Gas and Electric Company is not responsible for the condition of the City's piping to its own lamps on the bridges, in the column and arms, the property of the City, which supply with gas the cluster lamps at the Mt. Royal entrance to Druid Hill Park, or in the arms which are attached to the top of each of the City lamp posts of the other cluster lamps used by the City, which arms are the property of the American Street Lighting Company.

It is understood and agreed that certain paragraphs of Section 5 of the specifications, specifically referred to in the bid of the Gas and Electric Company, shall not be taken as part of the specifications.

IN WITNESS WHEREOF, The said Consolidated Gas Electric Light and Power Company of Baltimore has caused these presents to be signed by its Vice-President, and its corporate seal, attested by its Secretary, to be duly affixed hereto; and the City has caused these presents to be signed by the Mayor of Baltimore city, and its corporate seal to be hereto affixed, attested by the City Register.

CONSOLIDATED GAS ELECTRIC LIGHT & POWER CO. OF BALTIMORE,

(Signed) CHARLES M. COHN,
WM. E. SCHMIDT, JR., *Vice-President.*
Secretary.

Attest as to Charles M. Cohn: J. BARRY MAHOOL,
W. H. CASSELL. *Mayor of Baltimore City.*

Attest:
J. SEWELL THOMAS,
City Register.

Approved as to form and legal sufficiency:
EDGAR ALLAN POE,
City Solicitor.

Approved:
ROBERT J. MCCUEN,
Superintendent of Lamps and Lighting.

BOND.

KNOW ALL MEN BY THESE PRESENTS, That we, THE CONSOLIDATED GAS ELECTRIC LIGHT AND POWER COMPANY OF BALTIMORE, a corporation duly organized under the laws of the State of Maryland, Principal, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of Maryland, of Baltimore City, Maryland, Surety, are held and firmly bound unto the Mayor and City Council of Baltimore in the full and just sum of seventy-five thousand ($75,000) dollars, lawful money of the United States, to be paid to the said the Mayor and City Council of Baltimore, or to their certain attorney, to which payment, well and truly to be made and done, we bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, The above bounden, The Consolidated Gas Electric Light and Power Company of Baltimore, has entered into a contract with the said Mayor and City Council of Baltimore, bearing even date herewith, for the furnishing of illuminating gas for all the gas lamps used by the city in lighting the streets, avenues, lanes, alleys, bridges, public parks, squares and places, and for lighting the public buildings in the City of Baltimore, upon certain terms and conditions in said contract more particularly mentioned; and

WHEREAS, It was one of the conditions of the award of the Board of Awards of the said Mayor and City Council of Baltimore, pursuant to which said contract was entered into, that these presents should be executed.

Now, therefore, The condition of this obligation is such, that if the above bounden, The Consolidated Gas Electric Light and Power Company of Baltimore shall in all respects comply with the terms and conditions of said contract and its obligations thereunder, including the specifications therein referred to and made a part thereof, and shall indemnify and save harmless the said Mayor and City Council of Baltimore against any suit or suits, loss, damage or expense, by reason of any default, negligence, want of skill or care, on the part of the said The Consolidated Gas Electric Light and Power Company of Baltimore, its agents or employees, or of any sub-contractor in or about the performance or execution of said contract, including said specifications, and from and against any claim, suit, loss, damage or expense arising from the use by the said The Consolidated Gas Electric Light and Power Company of Baltimore, its agents or employees, or any sub-contractor, in the performance of its said contract, including said specifications, of any form of material, method of manufacture, machinery,

process, composition or thing which is patented, or claimed to be patented, then this obligation to be void; otherwise to be and remain in full force and virtue in law.

In Witness Whereof, The said The Consolidated Gas Electric Light and Power Company of Baltimore has caused these presents to be signed by its Vice-President, and its corporate seal, attested by its Secretary, to be duly affixed hereto; and the said Fidelity and Deposit Company of Maryland has caused these presents to be signed by its Vice-President, and its corporate seal, attested by its Assistant Secretary, to be duly affixed hereto.

Consolidated Gas Electric Light & Power Co. of Baltimore,

(Signed) Charles M. Cohn,
Vice-President.

Dated this 3d day of April, 1911.

Attest:

Wm. E. Schmidt, Jr.,
Secretary.

Attest as to Charles M. Cohn:

W. H. Cassell.

Fidelity and Deposit Company of Maryland.

By John H. Wigt,
Vice-President.

Attest:

Edgar F. Dobson,
Assistant Secretary.

Attest as to Surety:

Henry Franklin,
Jos. H. Cullen,

Approved as to form and legal sufficiency:

Edgar Allan Poe,
City Solicitor.

Approved:

J. Barry Mahool,
Mayor.

J. W. Freeman,
Deputy City Comptroller

SUMMARY OF LAMP ACCOUNT FOR THE YEAR ENDING DECEMBER 31, 1911.

PLAIN GAS LAMPS.

(Miner and Boulevard Type.)

Total number in service January 1, 1911		7,511
Installed during the pear	334	
Relit during the year	12	
		346
		7,857
Discontinued during the year		84
Total number in service December 31, 1911		7,773

ORNAMENTAL GAS LAMPS.

(Bridge and Other Cluster Lamps.)

Total number in service January 1, 1911		258
Installed during the year	30	
Relit during the year	4	
		34
		292
Discontinued during the year		11
Total number in service December 31, 1911		281

ELECTRIC ARC LAMPS.

(Overhead Districts.)

Total number in service January 1, 1911		1,556
Installed during the year		48
		1,604
Discontinued during the year		115
Total number in service December 31, 1911		1,489
Carried forward		9,543

Brought forward		9,543

ELECTRIC ARC LAMPS.

(Underground Districts.)

Total number in service January 1, 1911	1,013	
Installed during the year	113	
	1,126	
Discontinued during the year	10	
Total number in service December 31, 1911		1,116

40 C. P. INCANDESCENT ELECTRIC LAMPS.

(Overhead Districts.)

Total number in service (in streets, alleys, etc.) January, 1 1911	210	
Installed during the year	428	
	638	
Discontinued during the year	15	
Total number in service December 31, 1911		623

40 C. P. INCANDESCENT ELECTRIC LAMPS.

(Underground Districts.)

Total number in service (in streets, alleys, etc.) January 1, 1911	....	
Installed during the year	2	
	2	
Discontinued during the year	2	
Total number in service December 31, 1911		....
Carried forward		11,282

Brought forward		11,282

NAPHTHA LAMPS.

Total number in service January 1, 1911	790	
Installed during the year	13	
	803	
Discontinued during the year	399	
Total number in service December 31, 1911		404

ORNAMENTAL INCANDESCENT ELECTRIC LAMPS.

Total number in service January 1, 1911	....	
Installed during the year (November 15) 12 standards, 5 lights each, or	60	
	60	
Discontinued during the year	....	
Total number in service December 31, 1911		60
Total number of street lamps of all descriptions in service December 31, 1911		11,746

LIST OF TABLES

TABLE A—I.

THE AMOUNT OF APPROPRIATION AND THE AMOUNT OF EXPENDITURES FOR SALARIES.

Original appropriation		$15,324 00
EXPENDITURES.		
Robert J. McCuen, Superintendent of Lamps and Lighting	$2,958 33	
William Mohr, Assistant Superintendent of Lamps and Lighting	1,500 00	
James N. Baggett, Chief Inspector	1,500 00	
George Hocheder, Clerk and Stenographer	900 00	
Wiliam H. Stoffel, Inspector of Illuminating Oils	832 00	
Charles Heinritz, Mechanic	936 00	
Benjamin T. Wells, Supt. Eastern District	832 00	
Harry White, Supt. Northeastern District	832 00	
Charles Dollinger, Supt. Western District	832 00	
James H. Carter, Supt. Northwestern District	832 00	
Adam Hensel, Supt. Northern No. 1 District	832 00	
Harry C. Kennedy, Supt. Northern No. 2 District	832 00	
John Bowers, Supt. Southern District	832 00	
Frank F. Bush, Supt. Central District	832 00	
Total expenditures		15,282 33
Unexpended balance December 31, 1911		$41 67

TABLE A—II.

THE AMOUNT OF APPROPRIATION AND THE AMOUNT OF EXPENDITURES FOR GAS LIGHTING AND MAINTENANCE.

Original appropriation		$155,206 80
EXPENDITURES.		
Total cost for maintaining and operating street gas lamps, which includes rental of burners, mantles, fixtures, repairs and lamplighters' salaries, as per contract	$78,796 13	
Total cost for supply of gas to street lamps, markets and bridge lamps, as per contracts	64,090 93	
Connecting gas services to street lamps	3,166 94	
Transferring gas lamps	1,159 48	
Cutting off services from unused posts	171 24	
Iron lamp posts	3,322 40	
Livery for four horses and wagons	1,200 00	
Expert services and expenses, report on cost of gas and electricity for Baltimore	1,400 15	
Extra labor and salaries incident to this account	311 00	
Glass street lamp signs	460 02	
Iron enameled street signs	167 80	
Brackets for street signs	87 00	
Team hire, hauling posts and material	51 00	
One second-hand buggy for Department use	125 00	
Stamps and car tickets	15 00	
Advertising proposals	69 46	
Meter charts	19 96	
Sundry items (hardware, paint, blueprints, lumber, cement, rope, castings, bolts and nuts, pipe, etc.)	177 45	
Total expenditures		154,790 96
Unexpended balance December 31, 1911		$415 84

TABLE A—III.

THE AMOUNT OF APPROPRIATION AND THE AMOUNT OF EXPENDITURES FOR ELECTRIC LIGHTING AND MAINTENANCE.

Original appropriation		$188,662 50
EXPENDITURES.		
Total cost of maintaining and operating arc lamps, as per contract	$169,998 56	
Total cost of maintaining and operating arc lamps in parks and squares adjoining public streets, as per contract	1,445 16	
Transferring electric arc lamps	310 23	
Relocating lamps in the underground districts (subway connections)	1,200 00	
Installing and wiring ornamental lamps on City Hall Plaza	931 34	
Tungsten lamps for City Hall Plaza lamps	195 89	
Total cost for maintaining and operating incandescent electric lamps in streets and alleys	11,372 22	
Current for incandescent electric lamps in city market highways	2,680 57	
Current for No. 6 Engine House clock	100 66	
Expert services and report on cost for electric light plant	150 00	
Advertising proposals	179 35	
Lead cable	38 86	
Sundry items (tubing, hardware, photometer, etc.)	44 69	
Total expenditures		188,647 53
Unexpended balance December 31, 1911		$14 97

TABLE A—IV.

THE AMOUNT OF APPROPRIATION AND THE AMOUNT OF EXPENDITURES FOR NAPHTHA LAMPS AND MAINTENANCE.

Original appropriation		$12,100 99
EXPENDITURES.		
Total cost for maintaining and operating naphtha lamps, which includes the rental of burners, mantles, fixtures, repairs and lamplighters' salaries, as per contract	$12,097 28	
Total expenditures		12,097 28
Unexpended balance December 31, 1911		$3 71

TABLE A—V.

THE AMOUNT OF APPROPRIATION AND THE AMOUNT OF EXPENDITURES FOR INCIDENTALS.

Original appropriation		$350 00
EXPENDITURES.		
Advertising	$168 87	
Car tickets	50 00	
Postage stamps	28 50	
Printing annual reports (1910)	35 60	
Drawing instruments	26 60	
Typewriting reports	9 07	
Freight and express charges	4 45	
City Directory	7 00	
Sundry items (blueprints, repairs, notary public, drills, etc.)	16 64	
Total expenditures		346 73
Unexpended balance December 31, 1911		$3 27

TABLE A—VI.

THE AMOUNT OF APPROPRIATION AND THE AMOUNT OF EXPENDITURES FOR SPECIAL STREET ILLUMINATION.

Approved apropriation for illumination for Convention "Loyal Order Moose," per Ordinance No. 567, June 7, 1910		$2,000 00

EXPENDITURES.

Cost of construction of electrical work on court of honor, loops, etc., on Franklin street, between Eutaw and Howard streets, as per contract, July 21, 1910	$1,887 65	
Electric current and connections	77 35	
Total expenditures		1,965 00
Unexpended balance, December 31, 1911		$35 00

TABLE A—VII.

THE AMOUNT OF APPROPRIATION AND THE AMOUNT OF EXPENDITURES FOR SPECIAL STREET ILLUMINATION.

Approved appropriation for illumination, Grand United Order of Odd Fellows, Druid Hill avenue, per Ordinance No. 559, June 13, 1910		$450 00

EXPENDITURES.

Cost of construction, wiring arches, columns, signs, etc., as per contract	$407 66	
Electric current	21 08	
Connecting and disconnecting electric material	21 26	
Total expenditures		450 00

TABLE B.

SUMMARY SHOWING THE AMOUNT OF APPROPRIATIONS, EXPENDITURES AND BALANCES FOR THE YEAR ENDING DECEMBER 31, 1911.

Account.	Amount of Appropriation.	Expenditures for the year ending Dec. 31, 1911.	Balances Dec. 31, 1911.
Salaries	$15,324 00	$15,282 33	$41 67
Gas lighting and maintenance	155,206 80	154,790 96	415 84
Electric lighting and maintenance	188,662 50	188,647 53	14 97
Naphtha lighting and maintenance	12,100 99	12,097 28	3 71
Incidentals	350 00	346 73	3 27
Special illumination "Order Moose"	2,000 00	1,965 00	35 00
Special illumination "Order Odd Fellows"	450 00	450 00	
Total	$374,094 29	$373,579 83	$514 46

RECEIPTS, YEAR 1911.

Sale of old material	$1,531 24
General revenue	175 32
Total receipts for year ending December 31, 1911	$1,706 56

TABLE C.

SHOWS THE AMOUNT REQUIRED FOR YEAR ENDING DECEMBER 31, 1912.

The appropriation for salaries will cover the expense of the office and inspectors	$15,144 00
The appropriation for gas lighting and maintenance will cover the cost of gas for street lamps, squares, markets and bridges, rental of burners, incandescent mantles, fixtures and repairs, and salaries of lamplighters, transfer of lamps, keep of horses and wagons, street signs, labor, expert services, etc.	162,996 10
The appropriation for naphtha lighting and maintenance will cover the cost of gasoline and filling the fluid-burning lamps, rental of burners, mantles, fixtures, repairs and salaries of lamplighters, transfer of lamps, etc.	10,440 00
The appropriation for electric lights will cover the cost of electric arc lights for the streets, squares, markets, bridges and incandescent lights in No. 6 Engine House clock, Lexington Market and transfer and alteration of lamps, expert services, etc.	191,450 00
The appropriation for incidentals will cover the expense for advertising, Directory, postage, etc.	350 00

NEW IMPROVEMENTS.

The appropriation for boulevard lighting on Charles street, between Twenty-ninth street and University Parakway:		
Cost of construction, estimated	$5,268 70	
Cost of maintenance (6 months), estimated	488 50	
		5,757 20
Boulevard lighting on University Parkway, from St. Paul street to northern city limits:		
Cost of construction, estimated	$7,510 70	
Cost of maintenance, estimated	691 98	
		8,202 68
Cost of transformer house, transformer, switches, etc., estimated		1,500 00
Total		$395,839 98

INVENTORY OF THE PROPERTY

OWNED BY THE CITY AND USED IN OPERATING THE STREET LIGHTING SERVICE, ENDING DECEMBER 31, 1911.

On Streets.

12 Five-light Cluster Electric Lamp Posts.
7,778 Gas Lamp Posts.
5,964 "Miner" Lanterns.
1,205 "Boulevard" Lanterns.
98 Posts With Street Signs Attached.
25,500 Glass and Enameled Signs (estimated).

Harrison Street Store Room.

650 Enameled Street Signs.
122 Gas Lamp Posts.
2 Gas Lamp Posts (Pineapple Shape).
1 Gas Lamp Post (Meter).
2 Gas Lamp Posts (Very Large).
5 "Clyde" Posts.
86 "Miner" Lamps and Frames.
1 Forge.
1 Anvil.
1 Brake.
4 Manville Stakes.
1 Block and Tackle.
50 2-inch Lag Bolts.
75 Hexagon Bolts.
23 "Clyde" Brackets.
250 Rods.
3 Crowbars.
4 Shovels.
1 Rammer.
500 Bricks.
½ Load Sand.
230 Sign Urns.
71 Urns.
46 Regular Sign Brackets.
108 Long Rods.
75 Short Rods.
1 Lot ¾-inch Iron Pipe.

500 Sign Block Numbers.
8 Dial Plates.
2 Swedges.
1 Flatter.
1 Sledge.
1 Stove.
1 Tongue.
27 Small Globes.
13 Large Globes.
10 "Miner" Globes.
10 Reflectors.
1 Lot Electrical Wire.
3 P. A. Arms.
38 Regular Arms.
9 Bags Cement.
1 Ladder.
5 Pounds Nails.
5 Pounds Brass Bars and Washers.
1 Drill Press.
4 Pounds Washers.
3 "Miner" Boulevard Lamps.
1 Block and Tackle.
275 Feet Rope.
1 Derrick.
1 Large Shear.
1 Roller.
1 Groover.
1 Torch.

Laboratory.

1 "100" Letheby Bar Photometer.
1 Standard "Harcourt" Pentane Lamp.
1 Improved "Lowe" Jet Photometer.
1 6-inch Syphon Water Gauge.
1 Round Glazed Test Meter.
1 Square Glazed Test Meter.
1 Water Balanced Recording Pressure Gauge.
1 "Taglibeau" Open Coal Oil Tester.
3 Hydrometers (Oil).
3 25 C. C. Syphon Burette Tubes.
1½ Gross Standard Half-pint Glass Bottles.
8 Leather Oil Collector Cases.

1 Balance Stand.
1 Hammer.
1 Screwdriver.
1 "Underwood" Typewriter.
1 Typewriter Desk.
1 Metallic Fire-proof Record Case.
1 Letter Press and Book.
1 Electrical Volt Meter.
1 Electrical Am-meter.
Miscellaneous Glassware (Laboratory).
Necessary Record Books, etc.

In Electrical Laboratory.

3 Siemens & Halske D. R. Precissions Dynamometer Type Wattmeters.
1 Siemens & Halske Calibrating Rheostat or Load Box.
1 Combination Table for Instrument Testing and Checking.
2 Form-P. Portable Current Transformers.
1 Moving Coil Milli-voltmeter.
1 Moving Coil Voltmeter.
5 Manganin Shunts—Various Ranges.

At Livery.

1 Horse, 1 Wagon, 1 Robe, 1 Buggy, 1 Set Harness, 1 Blanket, Whip, etc.

Number and Cost of Street Lamps—1879 to 1911, Inclusive.

Year.	Number of Gas Lamps.	Total Cost per Gas Lamp per Year.	Number of Gasoline Lamps.	Total Cost per Gasoline Lamp per Year.	Number of Electric Arc Lamps.	Total Cost per Electric Arc Lamp per Year.	Number of 40 C. P. Incand. Electric Lamps.	Total Cost of Incand. Electric Lamps per Year.
1879	4847	$39.18	998	$29.79	....	.....	.....	.....
1880	5161	40.05	1011	28.52	....	.....	.....	.....
1881	5346	40.32	1028	29.24	4	On trial	.....	.....
1882	4847	39.58	1033	28.87	225	$255.50	.....	.....
1883	5056	35.72	1006	29.93	225	255.50	.....	.....
1884	5191	36.93	1043	28.92	243	255.50	.....	.....
1885	4935	32.65	1074	28.00	409	255.50	.....	.....
1886	5013	26.17	1042	30.02	476	255.50	.....	.....
1887	5277	27.40	841	38.99	531	182.50	.....	.....
1888	5697	31.46	1405	23.49	584	182.50	.....	.....
1889	5822	32.48	1388	21.91	603	182.50 146.00	.....	.....
1890	5742	32.17	1272	21.20	667	127.75	.....	.....
1891	5237	36.37	1158	26.50	965	127.75	.....	.....
1892	5375	37.34	1050	21.80	1030	127.75	.....	.....
1893	5569	37.86	1055	21.81	1035	127.75	.....	.....
1894	5794	36.86	1047	21.83	1039	127.75	.....	.....
1895	5790	37.32	897	24.84	1278	127.75	.....	.....
1896	5928	35.47	980	24.98	1338	127.75	.....	.....
1897	6043	34.04	1026	23.10	1355	127.75	.....	.....
1898	6235	32.50	1072	21.55	1369	127.75	.....	.....
1899	6232	31.60	1085	21.82	1391	127.75	.....	.....
1900	6136	32.50	1109	21.82	1394	99.92	.....	.....
1901	6153	21.40	1038	20.08	1516	99.92	.....	.....
1902	6495	21.40	1109	28.50	1565	99.92	.....	.....
1903	6631	21.40	1089	23.45	1603	99.92	.....	.....
1904	6670	20.25	1147	23.45	1599	99.92	.....	.....
1905	6663	16.25	1043	23.45	1726	67.49	.....	.....
1906	6931	16.25	915	27.50	1741	67.49	.....	.....
1907	7169	16.25	890	27.50	1797	67.49	.....	.....
1908	7199	18.10	989	25.00	2102	67.49	.....	.....
1909	7483	17.25	1128	26.00	2529	67.49	.....	.....
1910	7769	17.25	790	26.00	1013 1556	*60.25 †75.00	.....	.....
1911	7773	17.25	404	24.00	1489 1116	*60.00 †74.00	623	*$20.00

*Overhead. † Underground.

Total Cost of Street Lighting—1879 to 1911, Inclusive.

Year.	Gas.	Electric.	Naphtha.	Total.
1879	$151,338.53	.....	$22,432.00	$173,770.53
1880	165,662.39	.....	23,438.85	189,001.24
1881	223,210.13	.....	22,534.45	245,744.58
1882	200,264.55	$21,959.95	21 304.99	243,529.49
1883	189,338.92	57,487.50	21,999.19	268,825.61
1884	199,830.69	58,156.70	21,977.09	279,964.48
1885	169,928.87	78,575.00	21,241.52	269,745.39
1886	139,995.52	110,457.20	22,445.52	272,898.24
1887	151,347.27	107,087.80	25,982.38	284,417.45
1888	189,881.13	103,298.12	22,181.42	315,360.67
1889	200,332.04	98,593.10	19,073.38	317,998.52
1890	195,309.67	85,280.12	16,249.03	296,838.82
1891	201,250.41	102,783.60	19,791.35	323,825.36
1892	210,907.14	124,374.35	12,670.57	347,952.06
1893	223,860.38	121,658.49	12,936.48	358,455.35
1894	223,294.73	126,783.24	12,906.92	362,984.89
1895	225,256.66	141,694.26	13,088.14	380,039.06
1896	220,423.63	165,991.33	14,237.37	400,652.33
1897	215,505.77	172,420.22	13,750.88	401,676.87
1898	212,697.44	173,855.55	12,997.20	399,550.19
1899	207,287.17	175,098.95	13,371.25	395,757.37
1900	140,203.30	164,335.63	17,148.25	321,687.18
1901	140,110.02	144,135.93	17,775.85	302,021.80
1902	139,480.98	157,485.12	27,228.76	324,194.86
1903	137,208.45	158,548.28	28,084.38	323,841.11
1904	135,345.59	160,081.27	24,650.14	320,077.00
1905	119,163.61	152,718.28	25,957.30	297,839.19
1906	121,786.95	111,462.94	28,125.47	261,375.36
1907	119,452.37	121,692.07	23,340.00	264,484.44
1908	139,472.70	129,263.78	19,960.19	288,696.67
1909	145,452.18	152,938.66	25,653.60	323,744.44
1910	145,934.04	177,358.55	26,586.41	349,879.00
1911	154,790.96	188,647.53	12,097.28	355,535.77

REPORT

OF THE

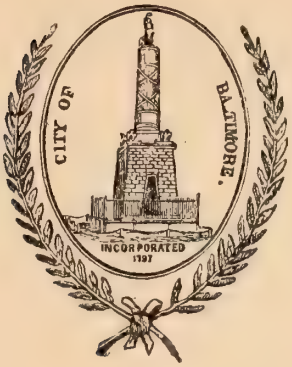
Superintendent of Public Buildings

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

YEAR ENDING DECEMBER 31, 1911



BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

REPORT

OF

SUPERINTENDENT OF PUBLIC BUILDINGS

BALTIMORE, December 31, 1911.

To the Mayor and City Council of Baltimore.

GENTLEMEN:

There are comparatively few who realize the importance of this department, the diversity of its operations, or the burden of its responsibilities.

Some part or portion of this department is in active service continuously. The department, in its entirety, is never closed. Night and day, three hundred and sixty-five days in the year, somebody is on active duty. The unremitting effort of the department is to preserve the comfort, convenience and safety, not only of all those engaged in the public service, but also of the public itself whenever it comes in contact with municipal affairs.

The activities of the department are continually increasing. Additional financial responsibilities are being persistently shifted to its shoulders. Despite these multiplying burdens, the department is expected to be successful and progressive without being overly insistent for more money.

It requires no small degree of skill and maneuvering to insure complete satisfaction, and, at the same time, avoid the hazard of eating up too much money. The department during the past year feels that it has fulfilled all of its duties and obligations, and that, too, in the face of one or two annoying difficulties.

MUST PLEASE MANY DIFFERENT PERSONS.

It must be remembered that this department has to cater to nearly a hundred other departments, each one of which thinks its own needs and demands the most important. All these requirements have to be adjusted and gratified, and that, too, as quickly as possible, and in such a way as not to overrun the annual appropriation. This requires close calculation, because it is impossible to foresee the extraordinary demands which always spring up from time to time. Proper allowance also has to be made for the continually expanding natural demands, all of which are the inevitable result of the city's annual growth.

The department has developed its system of supplies and purchases to such a point of precision that it never over-runs its allowed appropriation. It has perfected its system to that degree that it would take something unusual to break up its yearly financial calculations.

THE YEAR'S SUCCESSES.

The department prides itself upon two facts: first, that it has won the approbation of the various municipal departments which it has been called upon to serve; and, secondly, after providing everything that seemed to be needed, it has closed the year with a substantial surplus.

It must not be forgotten, either, that during the year several matters of unexpected expense were saddled upon the department, not one of which could have been foreseen and calculated into the year's requisitions. And yet, by careful management, by the strictest economy, by making every dollar produce a full dollar's worth, the department has carried all of its responsibilities to the end of the year, and has turned back to the Board of Estimates a more than creditable "unexpected balance."

WHAT THE DEPARTMENT HAS DONE.

It is difficult to understand the multiplicity of demands which the department has to handle unless some study is made of its detail work.

Four buildings have to be carefully watched and kept in fine condition; and in those four buildings are housed nearly all of the active municipal departments, including the Courts, and the court clerks. The wear and tear in offices and quarters like these are of a kind that require constant attention and a persistent outlay of money in order to keep everything in firstrate order. The public expects the municipal buildings and the municipal rooms, together with their furnishings, to be maintained in a manner creditable to the city; and it is to this department that the public looks to have this done. And the department feels that the results accomplished during the past year are substantially above the general average; and that, too, together with the fact that the year was closed with a satisfactory net balance.

The attentions given to the physical conditions of the buildings, plus the additions made by way of new and repaired furnishings, have resulted in putting the municipal property in better shape than it has been for years.

SPECIAL RECOMMENDATIONS.

The department feels that it has been somewhat handicapped, however, for the want of proper help of a certain kind. There are one or two additions which should be made to the list of employes, which a close examination will demonstrate to be wise and business-like. For instance:

The number of watchmen in the City Hall should be increased from four to five. There should be two watchmen in the Hall at night and three during the day, in order to give the building proper protection. It is hardly possible for one man to make frequent rounds through the building at night

and at the same time keep proper watch at the Holliday Street door. That door must be kept open until after midnight.

The corridors and several of the rooms should be painted and frescoed.

The cleaning of the interior of the City Hall is getting urgent.

A general overhauling of the several toilet rooms is likewise demanded as they are in some cases unfit for use, and far from sanitary.

DETAIL OF YEAR'S WORK.

The following improvements were made during the past year:

CITY HALL.

The Mayor's private office was furnished with new furniture, draperies, carpet and matting.

Reception room, new furniture, carpet and draperies.

Clerk's office, new desks, desk chairs, also new linoleum.

The Factory Site Commission's office was entirely furnished with new office furniture, linoleum, and the walls were newly painted.

The office of the Paving Commission received new desks, chairs, tables, and lighting arranged to suit.

The office of Superintendent of Lamps and Lighting received new linoleum, desk and chairs.

Office of Collector of Water Rents and Licenses was furnished with new floor covering, new desks and stools.

Office of Fire Commissioners received new desk and desk chairs.

Office of the Building Inspector was furnished with new linoleum, new desks, desk chairs and wardrobe.

Comptroller's office was furnished with one double flat top desk and linoleum.

Appeal Tax Court was furnished with flat top desk, new linoleum, desk chair and stools.

City Collector's office was furnished with new desk, wardrobe and floor covering.

Office of the Harbor Board was furnished with new typewriter desk and filing cabinet.

Office of the Water Engineer received new desk, table and two floors covered with linoleum.

City Librarian's office received new table.

The office of the City Engineer received new linoleum, desk and revolving chair.

The office of the Superintendent of Public Buildings received new carpet on private office.

CITY HALL ANNEXES.

Annex No. 1, occupied by Health Department and Bay View offices, has been thoroughly overhauled and renovated, the following articles being supplied for the rooms:

Animal room furnished with new linoleum; Bay View office with Wilton rug; Plumbing Division, standing desk with drawers.

Doctor Bosley's private office with two new desks.

This building is rented by the city for $3,300 per year.

Annex No. 2, occupied by the Street Cleaning Commissioner, Electric and Free Public Bath Commissions, also Topographical Survey, has been thoroughly overhauled and renovated. The following articles were supplied the rooms, viz.:

Bath Commission with filing cabinet, wardrobe and chest of drawers.

Topographical Survey with new desk and desk chairs.

Street Cleaning Department was furnished with new linoleum and carpet; Northeast room with new linoleum, wardrobe and one dozen arm chairs.

COURT HOUSE.

The Dormitory was thoroughly painted and supplied with two sets of magnificent solid mahogany leather furniture, two rooms carpeted and the hallway covered with linoleum, which has added very much to its appearance.

The private office of the Judge's room, Circuit Court, Room No. 214, occupied by Judge Heuisler, was thoroughly painted.

The Judge's private room of the Court-at-Large, Room 134, formerly occupied by Judge Niles, has been thoroughly painted.

The Clerk's office of the Circuit Court was thoroughly painted, and has improved the appearance very much.

The office of the Register of Wills was supplied with two rugs, new curtains and some furniture.

The Clerk's office of the Criminal Court was supplied with new curtains, filing cases and some furniture.

The Clerk's office of the Baltimore City Court was supplied with new curtains and some furniture.

The walls in the building are in the best possible condition and the interior wood work and furniture throughout the building is in the best condition obtainable.

If asking for improvements it would be well to ask for the painting of the Bar Library and also the State's Attorney's office, as they need paint very much; and it would also be well to ask for dust protectors to cover top of heat flues in the different rooms throughout the building.

MISCELLANEOUS.

Offices of the City Plan Commission were fitted up in City Hall Annex No. 2, but that Commission subsequently moved to the Calvert Building.

The Auditor's room in the City Hall was furnished with floor covering and desks.

The Dormitory for Jurors in the Court House was comfortably and attractively furnished after being nicely painted, this department handling some of the costs which were properly charged against the Inspector of Buildings.

FINANCIAL STATEMENT.

The cost of maintaining the department for the year ending December 31, 1911, was as follows:

City Hall, salaries	$16,710.83
City Hall Annex, salaries	5,717.50
Court House, salaries	33,807.49
City Hall, expense	11,100.00
City Hall Annex, expense	8,200.00
Court House, expense	26,516.15
	$102,051.97

Total appropriation for the year 1911	$103,283.33
Total expenditures for the year 1911	102,051.97
Balance	$1,231.36

CONCLUSION.

In conclusion, I beg to thank His Honor, the Mayor, and the Building Inspector for the many courtesies received during the year.

Respectfully submitted,

GEORGE T. AMES,

Superintendent of Public Buildings.

Annual Report

of the

Sewerage Commission

of the

City of Baltimore

1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

SEWERAGE COMMISSION

OF THE

CITY OF BALTIMORE

AMERICAN BUILDING

BALTIMORE, December 31, 1911.

HON. JAMES H. PRESTON,
Mayor of Baltimore.

SIR:

As required by Section 1, Chapter 349, of the Acts of General Assembly of Maryland of 1904, this Commission submits herewith a report of its work and expenditures during 1911.

By the death of Brigadier-General Peter Leary, Jr., (February 13, 1911) the Commission lost a most efficient member, and the City a public servant always alive to its interests, and faithful in the performance of his duties. As Chairman of the Commission from its organization until his death, he had much to do with shaping its policies and exerted a beneficial influence upon the members. He regarded his position as one of trust, and was scrupulously exact in its administration. A man of kind disposition, courteous manner, never speaking ill of any, he won the regard of those with whom he came in contact, and his death was deeply deplored.

On March 7, 1911, the Commission elected Charles England, Chairman, vice General Leary, deceased.

On April 18, 1911, Wm. W. McIntire was appointed to fill a vacancy on the Commission caused by the death of General Leary.

FINANCIAL REPORT.

The books and accounts of the Commission were duly examined by the Baltimore Audit Company, from the date of the last audit to the close of business December 31, 1911, and the Audit Company reported to the Commission as follows:

"We have completed, under our contract with the Mayor and City Council of Baltimore, an audit and examination of your books and accounts for the year 1911, which included the examination of original vouchers in the Comptroller's office in the City Hall. The schedules as per list attached give the same information that has been furnished the Commission in previous years."

"We have, during the course of our examination, made the usual complete audit of the details of your books of original entry, and have found everything in good order."

There has been submitted to the City Comptroller a complete and detailed statement of disbursements for the year 1911, which are summarized as follows:

Construction	$1,165,208 32
Construction expenses	80,574 33
Construction salaries	126,425 36
Administrative salaries	26,537 64
Special expenses	27,237 65
	$1,425,983 30
CREDIT—	
By amount derived from sale of plans and supervision of private drain construction, rent, old material, etc.	4,134 74
Net amount expended 1911	$1,421,848 56

UNDERGROUND OBSTRUCTIONS.

Early in the year the Chief Engineer called attention of the Commission to the cost of digging test pits, authority having been given him, from time to time, to make these preliminary tests. Experience proved that this method of gathering information regarding underground obstructions and conditions, and furnishing data to prospective bidders, resulted in a considerable saving in the bid price; therefore, the Commission directed that the making of test pits be continued wherever desirable. Procuring this information increases the percentage of engineering expenses materially, but in the end it has proven to be a wise and economical expenditure. It is desirable to avoid underground obstructions whenever practical. Many of the pipes in the streets are old, and, when uncovered, are found to be in bad condition and frequently fall to pieces and must be replaced with new pipe. While contractors are held strictly to the requirements of the specifications, there is an equity in some instances and a contractor should not always be required to replace an old pipe with a new one, hence the avoidance of these obstructions and the information given in advance is a great saving to the City.

SEWERAGE LOAN NO. 2.

At the City election in May, 1911, the voters ratified the Ordinance of the Mayor and City Council, submitting to them the Act passed by the Legislature in 1910, authorizing the issuance of stock by the City to an amount not exceeding ten millions of dollars, additional money for the completion of the Sewerage System. The very large vote by which this ordinance was ratified, indicated that the people of Baltimore had, since the commencement of the construction of the sewers by this Commission, become more fully convinced of the necessity of a prompt completion of the work, and endorsed the methods employed in carrying on this important improvement.

The Act providing for the "New Sewerage System Fund No. 2" contained provisions not included in the first Enabling Act, among which are the requirements that the Commission shall locate its sewers, intended for house connection, in the alleys in the rear of the houses wherever practicable, and that the City shall acquire, by purchase, private sewers whenever suitable and of sufficient capacity to drain houses connected with such sewers, and such other houses as may in the future be built abutting on that part of the alley or street, at a sum not exceeding 50 per cent. of what would be the cost of constructing a sewer of the same kind in the same place. The requirement to construct sewers in alleys whenever practicable will, in many instances, involve greatly increased cost, but the Legislature, City Council and the voters so emphatically approved of these provisions, that the Commission is acting in full accord with the letter and spirit of the Act.

HOUSE CONNECTIONS.

The Commission submitted to the City Solicitor the question whether, under the Acts of the Legislature and City Ordinances, in cases where the sewer connections were made in the front of houses, an iron pipe could be carried through the wall, thereby giving the property-owner a connection inside of the building line. The City Solicitor expressed the opinion that if there were any doubt about the Commission having authority to carry connections through the walls of a house when the connection is being made from the front or side, the City certainly had power to provide for doing so by Ordinance under Section 6 of the Charter, and accordingly an Ordinance was promptly prepared by him, passed by the City Council and adopted December 4, 1911, authorizing and directing the Sewerage Commission to carry connecting pipes to the inside of the walls of buildings on the building line, and forbidding the owners of such property from interfering with the Sewerage

Commission in the carrying of such pipes to the inside wall of their buildings and providing a penalty for interfering. While this will add to the cost of sewer construction, it will be a greater saving to the property-owners generally by having connecting pipes carried through the house wall, instead of stopping at the outside, when the Commission's contractors have the trench open and the sewers being laid across the sidewalk to the building line, with the further advantage to the property-owner of having the pipe exposed and ready for his connection.

Actual construction commenced upon the Sewerage System October 22, 1906, and from that time it has been pushed steadily forward. Soon after the work began storm-water sewers were put into service in many sections of the City, relieving unsatisfactory conditions of long standing, and, in some instances, saving the City from damage suits. The utilization of the sanitary sewers, however, was not possible until the Outfall Sewer was completed and a section of the Disposal Plant ready for handling the sewage. This was accomplished within the time specified by the Chief Engineer, and on October 27, 1911, the first house (1701 Jefferson street) was connected, and the caring for the sanitary sewage of the City began. Thus the point in sewerage construction was reached from which the Commission could look forward with more certainty to the completion of the work as planned, and the City of Baltimore will have the most modern and practical sewerage system of the world.

PUMPING STATION BUILDING.

With the exception of some minor details, deferred pending the erection of the pumps, the Pumping Station at East Falls Avenue was completed in August, 1911. The solidity of this building, and its appropriate appearance and arrangement, reflect great credit upon the Chief Engineer and Architect,

who at times labored under many disadvantages, because of unreasonable interference. When the pumps are in operation, this plant will be interesting to all our citizens, also a matter of pride, and those who may have an improper impression of its construction, because of unwarranted statements, will be given an opportunity of seeing it as it is, and not as it may have been misrepresented.

FLOODED DISTRICTS.

On August 25, the City was subjected to a rainstorm of unusual volume, the precipitation in a half hour being very heavy, taxing all sewers in the City to their capacity, and doing considerable damage at Leadenhall and Ostend Streets, Roland Avenue, also North and Slingluff Avenues. The Mayor called attention of the Commission to conditions existing at these points, and the Chief Engineer was requested to make a complete investigation. The work necessary for the relief of conditions at these points, as well as in other sections of the City, was contemplated in the original plans for storm-water sewers, but could not be taken up until after January 1, 1912, at which time Sewerage Fund No. 2 will be available. It is intended to press as vigorously as possible work in all the sections referred to.

SEWERS IN THE ANNEX.

The rapid development in the Annex, and prospect of extensive street improvement in that section, possible under the Annex Paving Law, has created a condition not contemplated when the original report and plans of the engineers for the Sewerage System were adopted. This Commission has given great consideration to the situation in the outlying districts of the City. Because of the widely scattered character of the proposed street improvement in the Annex, the construction

of sewers in the proposed streets would result in many disconnected sections which cannot become a practical part of the Sewerage System until the general construction has reached these points, therefore the interest on unproductive or unused outlay would be a very considerable item for the taxpayers. Important as is the work in the Annex, it does not compare with the necessity and obligation to sewer the old portions of the City, especially that section included in the original general plan and outlined on the accompanying maps prepared by the Chief Engineer and adopted by this Commission in 1906. Upon these plans and estimates was based the cost of the Sewerage System. When they were considered and adopted, it was anticipated that at some time in the future the system would gradually and systematically be extended into the outlying districts, but the Commission is of the opinion that its duty under the Enabling Act is the establishing of a Sewerage System, and the sewering of the then built-up sections of the City first, leaving the extension of the system, which must go on year after year as development progresses in the northern and western limits of the City, to a permanent Department of the City Government, which shall assume charge of the system when the Commission's duties under the Enabling Acts are completed.

The cost of constructing sewers in newly designated streets in the undeveloped Annex, which were not located, or could not have been considered, at the time the Commission adopted the general plans of the system, should be provided for in exactly the same manner as any other future improvement, which development may require after the life of the Enabling Acts has run out, by the expenditure of the amount appropriated for construction as originally planned. There may be exceptional cases where wisdom and general economy require a modification of this policy; but more than this would result

in the exhaustion of the Sewerage Fund before completion of the original scheme.

JONES FALLS CONDUITS.

On July 6 the contract for Section No. 1 of the Jones' Falls Conduit was let, and on November 1 the contract was awarded for Section No. 2. These two contracts embrace the entire work of covering Jones' Falls from a point two hundred feet south of Baltimore Street Bridge to a point just west of the Guilford Avenue Bridge, and was the practical beginning of the long contemplated improvement for the relief from conditions which have for years been steadily growing more serious until they became a menace to health, and a detriment to business.

The original plans considered by the Commission included the Jones' Falls improvement in the layout of the storm-water system, but it became evident upon a careful study of the general conditions that the first appropriation of $10,000,000 was not sufficient to admit of the Jones' Falls improvement without neglecting more pressing sanitary conditions. When the second loan was favorably acted upon by the voters, the reason for delay was removed, and working plans were promptly prepared for this work. On May 12 and 13, 1911, the Consulting Engineers, Messrs. Hering, Gray and Sterns, visited Baltimore and conferred with the Chief Engineer in regard to the Jones' Falls Conduits, and on May 26, 1911, reported to the Commission that the plans met with their approval, also commended the hydraulic features of the whole length of the conduits. On June 9 and 10, Messrs. Hering, Gray and Stearns again visited Baltimore for the purpose of inspecting Jones' Falls above North Avenue Bridge, also to examine the plans for a drift-catcher, and on July 27 reported to the Commission approving the plans, etc., of the Chief

Engineer. The drift-catcher, or interceptor, will be constructed at a point south of the Cedar Avenue Bridge, most available from an engineering and practical standpoint, rights having been obtained, without cost, from the Northern Central Railway, which owns the property on the west side of the Falls, and from Mrs. Fannie A. Timanus, on the east side. The very full and interesting reports of the Consulting Engineers upon the Jones' Falls Conduits and drift-catcher are transmitted herewith, marked Appendix "A" and Appendix "B."

REPORT OF CHIEF ENGINEER.

There is transmitted herewith (Appendix "C") report of the Chief Engineer, which embodies the engineering features and other details of sewerage construction during the year. The average citizen, in his preoccupation with other matters, is hardly expected to always keep informed even upon this important work, or to appreciate that the construction of the Sewerage System is not merely the opening up of a trench and laying a pipe, but that every section, no matter how isolated, must bear a certain relation to every other section, as well as to the whole. Therefore, the report of the engineering features and general construction will prove interesting. In forwarding the report of the Chief Engineer, the Commission takes this opportunity to make reference to the skill and faithfulness which has characterized the work of the Chief Engineer, also the entire Engineering Staff and their loyalty to the City's interests.

OFFICE EMPLOYEES.

The rapid progress of the construction work during the year has greatly increased the labor and responsibilities of those employed in the Administrative Department, and they are

entitled to great credit for their efficiency and willingness to meet every demand upon them.

Respectfully,

CHARLES ENGLAND, *Chairman*,
JAMES H. PRESTON, *Mayor*,
WILLIAM D. PLATT,
MORRIS WHITRIDGE,
IRA REMSEN,
J. EDWARD MOHLER,
WILLIAM W. MCINTIRE.

HARRY W. RODGERS, *Secretary*.

APPENDIX "A"

MAY, 22, 1911.

TO THE SEWERAGE COMMISSION OF THE CITY OF BALTIMORE,

MR. CHARLES ENGLAND, *Chairman,*
American Building, Baltimore, Md.

GENTLEMEN:

In accordance with your request, we met in Baltimore on May 12 and 13, 1911, and conferred with Mr. Calvin W. Hendrick, Chief Engineer, in regard to the plans then nearly completed for the Jones' Falls Conduits.

The portion of the open channel of Jones' Falls to be replaced by the conduits in the present improvement extends from a point just above the corner of Guilford and Mt. Royal Avenues and near the Union Station to a point 200 feet below Baltimore Street, but provision is made in the plans for a further extension to the harbor at Pratt Street, should such extension at any time be found desirable.

We considered the feasibility of the project, the quantity of water which might be brought to such conduits by the largest floods and the necessary features of the designs in order that the conduits should be able to convey efficiently and safely the water of such floods. We made a careful examination of the plans which had been prepared and inspected on the ground the route of the conduits.

We found that the project is a feasible one and that provision has been made for conveying 15,000 cubic feet of water per second, which, in our judgment, will not be exceeded during the largest floods. The quantity provided for is much larger than that actually flowing during any floods known to us, but we believe it to be the proper amount to provide for in the present case. In making this statement, we

have, of course, given due consideration to the size of the drainage area. The general features of the designs have our approval, as they meet the requirements of the situation in regard to efficiency and economy in construction.

We have considered Mr. Hendrick's suggestion of the possible obstruction of these conduits by trees, bridges, small buildings or other things which might be washed away by a phenomenal flood, such as is provided for in this case, and while it seems probable that with conduits of such magnitude nearly all large objects would pass through without obstructing them, some large objects, if not intercepted elsewhere, might lodge on the dividing walls at the head of the triple conduit and cause an obstruction. We, therefore, approve the adoption of some plan which will provide at a suitable place above the head of the conduits means for intercepting large floating objects.

On May 19 we received from Mr. Hendrick three completed plans relating to the portion of the conduits known as Section 1, extending from a point 200 feet south of Baltimore Street up to a point 153 feet south of Centre Street, this being the portion to be included in the first contract for the work. These plans meet with our approval, but we desire to qualify this statement, so far as it relates to the strength of the structure and the bearing power of the piles under it, by stating that we have made no detailed computations relating to these matters, understanding that in regard to them you will depend upon the computations made by your engineering department.

On the same date we received a plan showing the hydraulic features for the whole length of the conduits, which also meets with our approval.

Respectfully presented,

(Signed) RUDOLPH HERING,
(Signed) SAMUEL M. GRAY,
(Signed) FREDERIC P. STEARNS,
Advisory Engineers.

APPENDIX "B"

NEW YORK, July 27, 1911.

TO THE SEWERAGE COMMISSION OF THE CITY OF BALTIMORE,

MR. CHARLES ENGLAND, *Chairman,*
American Building, Baltimore, Md.

GENTLEMEN:

In a report dated May 22, 1911, we advised you as to certain general features of the proposed Jones' Falls Conduit and approved two completed plans of the lower portion of the conduit known as Section 1. On June 9 and 10 we were in Baltimore for a further conference with Mr. Hendrick, examined the valley of Jones' Falls for a mile and a half above the head of the proposed tunnel, with reference to the proper location for a drift-catcher, and visited the Sewage Disposal Works at Back River.

On June 26, and on subsequent dates, we received from Mr. Hendrick plans of Section 2 of the conduit and of various locations and studies for the drift-catcher. On June 29, in Boston, and on July 3 and 27, in New York, we met again to compare our studies and confer regarding the plans.

There are three general plans of Section 2, extending from a point 153 feet south of Centre Street, northerly to the tunnel, and consequently embracing all that portion of the conduit north of the point to which the plans of Section 1 were approved in our last report. There is also one plan showing preliminary details of the Junction Chamber, and another showing study of entrance channel to tunnel.

On the plan of the most southerly portion of Section 2, we note that 30-inch pipes are provided at several streets to carry the flow of storm-water drains under the two westerly conduits to the easterly conduit. These are not shown in sufficient detail to enable us to pass upon this portion of the plan, but the combined capacity of these pipes seems to be too large at some of the crossings and there also seems to be a departure from the policy pursued at the Chase Street siphon, built a few years ago, and which we prefer, where small and large pipes are provided—the smaller flows being carried through a small pipe until its capacity is exceeded, when the water rises and passes through the larger pipes.

In considering the cross-sections shown on this plan, we believe it advisable, where the structure is to be supported upon the rock, to build an additional longitudinal wall one foot thick under the middle of each of the larger conduits, so that the support of the invert will be independent of the earth under it. This precaution will add little to the cost. A similar wall should be provided where similar conditions exist on Section 1. Except as noted, we approve this plan.

On the next plan, and on a portion of the third plan, covering the middle portion of Section 2, we note that changes have been made in the elevations of the bottom of the east conduit from those on a profile previously approved. These changes have been made in part to facilitate the carrying of drains under the westerly conduits to the easterly conduit, and in part to improve the conditions of flow from the Junction Chamber into the easterly conduit. These changes and the plan meet with our approval.

On the third plan, embracing the extreme upper end of the triple conduit, the Junction Chamber and the tunnel with its approach, we note the lining of the sides and arch of the tunnel consists of 12 inches minimum thickness of masonry. We approve of this minimum thickness, provided the masonry lining between the invert and a point at least 23 feet above it is built solidly to the rock.

The general features of the Junction Chamber, shown in preliminary detail on a separate plan, meet with our approval.

The approach to the tunnel, also shown in detail on a separate plan, indicating a gradual change in the cross-section of the open channel to that of the tunnel, and a gradual descent of the invert from the bed of the stream to the invert of the tunnel, also meet with our approval as to the general features.

We desire to qualify our approvals by stating that we have not made sufficient detailed computations of the strength of the reinforced concrete structures or of the trusses which support the roof of the junction chamber, understanding that in regard to these matters you will depend upon the computations made by your engineering department.

Regarding the proposed drift-catcher across Jones' Falls, we have the following comments to make:

The enclosure of Jones' Falls and its artificial diversion through a tunnel and thence through a triple conduit headed by two cut-waters makes it desirable to erect above the tunnel entrance means for catching large drift, such as trees, bridges, small buildings, etc., which might block a part of the new channel.

The natural and usual plan in such a case is to put a drift-catcher as closely as practicable to the point where an obstruction may occur.

After an examination of the valley for one and a half miles above the tunnel, we found that not until the upper portion of this distance was reached, and a short distance below the Rock Mill, would a flood of 15,000 cubic feet per second, for which provision has been made in the proposed structures below, be retained within the present banks of the stream, without overflowing the Falls Road, the railroads and other low-lying property.

A flood which occurred in 1905, we are informed, discharged about 9,500 cubic feet per second, and between the crossing of the Pennsylvania Railroad and the mouth of Stony

Run, flooded, to a few feet in depth, nearly all of the Falls Road, the Baltimore and Lehigh Railroad and some adjoining property.

In the future, it will be desirable, in accordance with the usual practice, to regulate the channel of Jones' Falls above the tunnel first by deepening it and then either covering or walling it up on both sides, so that a cross-section is provided sufficient to carry the greatest freshet waters without flooding any adjacent territory.

Some 7,000 feet above the tunnel is the mouth of Stony Run, which has a length of about 4 miles and, at present, has several bridges crossing it, a railroad following up the valley and a number of buildings located near the stream.

Two alternative treatments are available. One is the placing of a drift-catcher across the valley at some point below the mouth of Stony Run and above Maryland Avenue, which latter is about 1,800 feet above the tunnel. The other is above the mouth of Stony Run and about 7,500 feet above the tunnel.

Any location south of the crossing of the Baltimore and Ohio Railroad should, in our opinion, not be adopted, because of the increased danger of turning flood waters down the railroad into the Union Station. Therefore, the lowest practicable location would be to the north of the Baltimore and Ohio crossing, or about 3,800 feet above the tunnel.

Between this point and Stony Run, and in order to be effective during the largest floods, a drift-catcher would have to extend across the flooded area, including both the railroad and the Falls Road. Or, as an alternative, the railroad and the Falls Road would have to be raised above the flood height, confining the drift-catcher practically to the present channel. This raising of the roads would be expensive.

On the other hand, at a point about 300 feet below the Rock Mill, a drift-catcher can be built across the entire channel without interfering with any public road, and another, but

smaller one, across the Stony Run Valley, unless bridges will take its place. By this means the tunnel can be protected from drift carried by a freshet of 15,000 cubic feet per second. The position of these two drift-catchers would leave a slightly larger open area furnishing drift material between them and the tunnel than in the case of a single structure below the mouth of Stony Run.

For the reasons given, however, we do not find a decided preference for either location, and believe that the latter will require less expenditure and, therefore, recommend its adoption.

It will be necessary, however, to exercise some control over the flood channel between the tunnel and the drift-catcher. First, by keeping the trees, growing along the banks of the stream well cut down, and, secondly, so far as practicable, by preventing undesirable structures from being erected and bulky floatable materials from being stored within the flood channel.

The drift-catcher which we approve for immediate construction is located, as already indicated, at a point about 300 feet below the Rock Mill, where there is ledge rock on both sides and, as we understand, also in the bottom of the valley.

The arch and pier type of structure, which we approve, is shown in part upon the preliminary plan furnished by Mr. Hendrick, entitled "Studies for Drift-Catcher," and in part upon a plan, dated July 12, 1911, giving alternate designs of the drift-catcher.

The general design consists of narrow piers about 20 feet high, spaced 8 feet apart from centre to centre, held at the bottom by being concreted into pits excavated in the rock, and at the top by a horizontal concrete arch extending from one side of the valley to the other and abutting against the ledge.

Either design of pier shown on the plan of July 12 would be satisfactory. The one to be selected will depend upon the local conditions, especially on the depth to the rock. Should

the depth be greater than indicated upon your plan, it may not be advisable to reach the rock, but to build instead, in a trench excavated in the bed of the stream, a bottom arch corresponding in its general design to the upper arch now shown on the plan.

We have been asked to consider and advise as to the extension of the Sewage Disposal Works so that they will be capable of providing for a larger population than can be taken care of by the portion of the works already built.

We have given this matter due consideration and believe that the practical operation of the portion of the works already built, for six months or a year, will furnish much additional information of value in designing the extension of the works, and that they should not be extended until that experience has been obtained, provided it is possible so to adjust the rate of building the lateral sewers and connecting the buildings as not to seriously overtax the portion of the Disposal Works now constructed.

Respectfully presented,

(Signed) RUDOLPH HERING,
(Signed) SAMUEL M. GRAY,
(Signed) FREDERIC P. STEARNS,
Advisory Engineers.

APPENDIX "C"

ANNUAL REPORT

OF THE

CHIEF ENGINEER

FOR THE YEAR 1911

DECEMBER 30, 1911.

MR. CHARLES ENGLAND, *Chairman, and*
GENTLEMEN OF THE SEWERAGE COMMISSION.

DEAR SIRS:

The results of our construction work during 1911 will make the year stand out as one of the most important milestones in the history of the City. Some of the results accomplished have been:

1. The connecting of the first dwelling to the Sanitary Sewerage System, thereby putting into actual operation the great Sewerage Disposal Plant at Back River, with units completed to purify the sewage from about 300,000 people;

2. The completing of the Sewage Pumping Station, together with foundations for five 27,500,000 gallon pumps;

3. The practical completion of the installation of three of the 27,500,000 gallon pumps, together with engines, boilers, etc.;

4. The relieving of flooded conditions in various parts of the City by the installation of storm-water drains;

5. Placing under contract the reinforced concrete conduits that will enclose Jones' Falls from a point about 200 feet south of Baltimore Street nearly to Union Station, as outlined in my 1906 Report.

Total amount expended and placed under contract in 1911,	$2,653,810 78
Grand total expended and contracted for to date.....	10,515,032 82
Total number of miles of sewers and drains laid and contracted for to date, approximately.....	215
Appropriation asked for 1912.....	$4,596,881 00

SANITARY.

The question is naturally asked, why we did not let the entire Disposal Plant at one letting. This was not done for the reason that, when the present Sewerage Commission came into existence they found a loan of $10,000,000 available. Our estimates of 1907 showed that to sewer and drain the City, in accordance with the Enabling Act, would require twice that amount. Not being certain that sufficient money would be forthcoming later on, to sewer and drain the entire City, we decided to expend the money in such a way as to build a sufficient number of units at the Disposal Plant, and enough sanitary sewers throughout the City, to take care of practically half the population, so that, in case the work had to stop, we would leave a complete, workable plant as far as the $10,000,000 would go, thereby preventing the expenditure of money for construction work that would lie idle in the ground until the entire system could be completed.

During the year many difficult problems had to be overcome in planning and constructing the sewers throughout the City, two of the most notable being the carrying of the large High Level Interceptor (which carries two-thirds of the City's sewage) across Jones' Falls at Eager Street, which will be done

by means of an inverted siphon; and the construction of this same sewer in the vicinity of Washington's Monument. The best route for the sewer was down St. Paul Street to Monument Street, across Monument Place, passing between the Monument and the Peabody Institute, thence to Centre Street, and west on Centre Street. Being unable to get any information regarding the size, depth or construction of the foundations of the Monument, I hesitated, without this information, to construct such a large sewer in close proximity to the Monument. I therefore decided to construct the sewer in St. Paul Street to Madison Street, thence to Cathedral Street, and in Cathedral Street to Centre Street, etc. In order to interfere as little as possible with travel, we are constructing this sewer in tunnel, with shafts, securing satisfactory results.

I attach hereto a map (Plate No. 2) showing the areas that have been sewered, or in which sewers are now under contract, which shows that practically all of East and Northeast Baltimore is sewered, or under construction; also large areas in the middle section south of Druid Hill Park, this latter area being at the source of the McMechen Street Interceptor. The reason for beginning our work in these sections of the City is because they are drained by gravity through the High Level Interceptor. Large areas in the low level district, around the harbor, are also ready and will shortly be connected to the intercepting sewers leading to the Pumping Station. From now on we will push the construction of sewers in the business section of the City.

A bird's-eye view of the general layout of our sanitary sewers, in connection with the Outfall Sewer and Disposal Plant, reminds one of a tree—the Disposal Plant being the roots, the Outfall Sewer the trunk, the large intercepting sewers throughout the City the branches, small laterals the twigs, the houses the leaves, and the people the birds in the trees.

SEWAGE PUMPING STATION.

The long and vexatious controversy with the Building Inspector regarding the foundations of the Pumping Station having been decided in our favor (thereby saving the City approximately $100,000), the work has progressed rapidly. The building is completed, and the installation of three of the 27,500,000 gallon pumps will be completed and the pumps will be ready for operation within a few weeks.

The location and design of this station have been worked out after careful consideration to secure both rail and water transportation for coal, which is handled automatically from either barges or railroad cars. The building is of brick and stone on a concrete foundation. The walls are of granite below the main floor, above which they are of light brown brick, with terra cotta moldings and copper cornice. The roof is of slate, supported by steel trusses which are carried by steel columns built into the walls. These columns also support the traveling crane.

The building is fireproof throughout. Its outside dimensions are 188 feet by 156 feet 7 inches. The height from the ground to the top of the walls is about 59 feet, and to the top of the tower for the coal and ash handling machinery about 110 feet. On account of the character of the ground at the site of the building and the great weight of the machinery, the foundations were carried to a depth of from 23 to 35 feet below mean low tide, at which depth an excellent foundation was reached.

In addition to the engine and boiler rooms and the screen chamber, the building contains a reception room, offices for the superintendent of the station and for general purposes, a drafting room, storerooms and bath and toilet rooms.

The engine room is 180 feet long, 54 feet wide and 68 feet high from the basement floor to the tie beams of the trusses. It is lined with enameled brick to a height of 23 feet above

the basement floor; above that level the walls are of cream-colored, impervious brick. This room will contain five (5) sewage pumping engines, two (2) drainage pumps, a 20-ton electric crane, the electric generators and switchboard, and valves and piping to control the discharge from the pumps. Of the five (5) pumping engines, three have been installed —the other two will be added as the volume of sewage increases. They are vertical, triple-expansion, crank-and-fly-wheel, condensing engines, each having three steam cylinders 22, 41 and 62 inches in diameter, all of 60 inches stroke. The designed speed is 20 revolutions per minute, and at this speed each engine will pump 27,500,000 gallons of sewage every 24 hours against a head of 72 feet, or a total of 82,500,000 gallons every 24 hours for the three pumps at present installed. Each engine will develop about 400 horse power at normal speed.

The sewage will be discharged through cast-iron force-mains into a large sewer which connects with the Outfall Sewer at Chase and Durham Streets, from which point it flows by gravity to the Disposal Plant. Each force-main is 42 inches in diameter, and the piping is so arranged that each pumping engine can discharge into either of the two force-mains. It is intended that one of the engines shall be always held in reserve to allow for possible breakdowns. It is expected that when the population of the City has reached 1,000,000, the average flow of sewage in the Low Level Interceptors will be equal to the capacity of two of the pumping engines, and that four of them will be able to take care of the maximum flow that will occur at any time.

The drainage pumps are 12-inch centrifugal pumps, driven by compound, condensing engines of about 40 horse power each, and have a capacity of 3,000 gallons per minute each. These pumps will draw water from the underdrains which have been laid under the interceptors, and will discharge it either through the condensers of the sewage pumping engines or directly to the harbor, as may be desired.

Between the engine room and the boiler room is the screen chamber. Here, below the level of the main floor, is the reservoir into which the sewage is discharged from the interceptors, and from which it is drawn by the pumps. Before passing to the pumps the sewage will be screened twice—first through a set of movable screens at the entrance to the screen chamber and then through fixed screens located over the suction pipes of the pumps. The movable screens will be arranged to take out the coarser materials, and will be hoisted out of the sewage when it is necessary to clean them. Any material collecting on the fixed screens will be raked off by hand. The water in the material taken from the screens will be pressed out by steam or hydraulic pressure, and the screenings will then be burned in a furnace located in the boiler room basement. Above the screen chamber, on a level with the main floor of the building, are located toilet rooms for the engine room and boiler room forces, an up-to-date machine shop of sufficient capacity to take care of ordinary repairs, and a storeroom, and above these is a gallery giving access to the main steam pipes.

The boiler room is 94 feet long by about 50 feet wide, and space is provided for five water-tube boilers, (set separately), two economizers, coal and ash handling machinery, auxiliary pumps, etc. Above the boilers are coal bins with a capacity of 1,200 tons. This amount is sufficient to run the station at its full designed capacity for nearly three months. Three boilers, one economizer and the coal and ash handling machinery have been installed. In the basement of the boiler room are located the incinerating furnace for the screenings, a toilet room for the screenmen, and storerooms for repair parts required in the boiler room.

The boilers are water-tube boilers of the Babcock & Wilcox type, each of 265 boiler horse power. Of the three boilers installed, one only will ordinarily be under steam, and when the station is operated at its full capacity it is expected that

two boilers will ordinarily be in use—the others being put in service as required to take care of the fluctuations in the flow of the sewage. Each boiler is of sufficient capacity to run one main engine and all auxiliary machinery, and has a heating surface of 2,650 square feet and a grate area of about 60 square feet. The steam pressure is 165 pounds.

Each economizer has 1,400 square feet of heating surface and will heat the feed water from about 90 degrees to about 200 degrees Fahrenheit.

The steam piping between the boilers and the engines is so arranged that no single accident can put more than one boiler or one engine out of service. The boilers are connected to a single chimney, which is 200 feet high above the boiler room floor, and 6 feet 8 inches in diameter at the top. The chimney is built of brick of the same color as the outside walls of the building, and is lined with fire-brick for half its height. It is built on a concrete foundation, carried to the same depth as the foundations for the building. The foundations for the pumps are separate from those for the building, in order to absorb any slight vibration that might come from the engines, although the latter are so constructed that there will be practically no vibration.

STORM-WATER DRAINS.

On beginning actual construction, the Commission felt that the sanitary side of the question should be pushed to the exclusion of the storm-water drains, with the exception of about $1,000,000 to relieve certain sections of the City that had been suffering for years from flooding, with heavy law-suits threatened, especially around Harrison and Saratoga Streets.

This policy prevented the carrying out of the storm-water construction as systematically as was done with the sanitary sewers. While we have practically all of the sanitary sewers laid or under contract in East and Northeast Baltimore, we

still have some small stretches of storm-water drains to construct. The balance of the loan to complete the sewer work having been passed, we are now pressing the storm-water drain construction in such a way as to work in conjunction with the Paving Commission, so they can proceed with their work.

I attach hereto a map (Plate 3) showing the storm-water drains that have been constructed and put under contract, including old drains and those yet to be constructed.

On August 25, 1911, occurred one of the heaviest rainfalls in the history of Baltimore, as shown by the Weather Bureau records, causing serious overflows and resulting in my making the following special report to the Commission regarding the necessary relief, with the recommendation that appropriations to cover the work be included in our estimates for 1912, viz.:

DRAINAGE CONDITIONS IN VARIOUS SECTIONS OF THE CITY.

BALTIMORE, October 19, 1911.

MR. CHARLES ENGLAND, *Chairman, and*
GENTLEMEN OF THE SEWERAGE COMMISSION.

DEAR SIRS:

I return herewith the correspondence received with your letter of August 30, regarding drainage conditions at the following locations, particularly with reference to the damage due to flooding caused by the storm of August 25, 1911, viz.:

1. Roland Avenue, south of Twenty-sixth Street.
2. Leadenhall and Stockholm, and Leadenhall and Ostend Streets.
3. North Avenue, east of Slingluff Avenue.
4. Fairmount and Kenwood Avenues.
5. 900 block North Bond Street.
6. 2000 block Aliceanna Street.
7. 2300 block Boston Street.
8. Patuxent and Baltimore Streets.

With reference to the conditions in the vicinity of Roland Avenue and Thirty-sixth Street, this matter is covered by my report to the Commission dated September 13, 1911, and, under the action of the Commission at their meeting on that date, the construction of the storm-water drain referred to in my letter will be undertaken shortly.

Regarding the conditions in the 2000 block Aliceanna Street, this matter was dealt with in my letter of September 11, 1911, to His Honor, the Mayor, a copy of which I enclose herewith.

All of the above-mentioned locations are, with the exception of the first named, in the low-lying sections of the City, which are drained by old existing drains, or where storm-water drains have not yet been constructed. On account of the fact that the City of Baltimore, with a population of about 600,000, has grown to its present size without installing an adequate drainage system, flooding in many sections of the City should be expected during a "maximum" storm of the intensity of that of August 25, 1911.

Complete studies of the drainage problem covering the entire City have been made, and the correction of the trouble at the above-mentioned locations is anticipated by the comprehensive plans adopted by the Commission. A great many cases of serious flooding have already been corrected by the installation of storm-water drains according to our plans, and now that the necessary money is available for the completion of the storm-water drainage system, the general installation of storm-water drains, which will correct the flooding at the locations mentioned, will be undertaken in the near future. In fact, plans are now being prepared for storm-water drains to be constructed during the year 1912 for the relief of the conditions set forth in the attached correspondence.

As lawsuits may grow out of the flooding at the locations under discussion, the fact that the flooding was caused by a storm of "maximum" intensity (for which provision is not usually made in the design of storm-water drains) should

be given first consideration. The storm in question was the second in severity in the history of the United States Weather Bureau, where records have been kept for many years by means of automatic rain-gauges. This excessive downpour was over 30 minutes in duration, with a recorded rate of rainfall of 6.75 inches an hour. The run-off from urban areas produced by a storm of such severe intensity was much greater than it is customary to care for in the design of storm-water drainage systems. In other words, the run-off was much greater than would have been produced by a 4-inch rainfall, which I understand the Courts have ruled is the maximum to be considered in the design of storm-water drains for the City of Baltimore.

In the larger cities of the world no attempt is made, in designing drainage systems, to provide for the maximum storms. In New York City, in order to protect the city against further suits for damage due to flooding from inadequate sewer capacity, the approval of the plans by the Board of Estimate and Apportionment was qualified by the following note:

"The sewers shown on the drainage plan are intended to have a capacity adequate for the reasonable needs of the drainage district for a limited period and are not intended to be of adequate size for immediately removing the storm-water when the precipitation is at an *abnormal* rate or when the drainage area shall have become largely or fully improved. The capacity has been thus restricted for the purpose of keeping the cost within limits which it is deemed may be now properly assessed upon property benefited."

It is only natural that sewers and drains built years ago to serve the residential growth of the City should, as the drainage area is developed and as the impervious areas, such as pavements and roofs, increase, gradually show their inability to take care of the increasing quantity of storm-water,

and eventually become nuisances by causing the flooding of adjacent streets and cellars even during comparatively small storms.

Such drains were caused to overflow during the storm of August 25, but the plans of the Commission, when carried out, will relieve the intolerable conditions by the reconstruction of parts of the old drains and by the construction of additional drains in streets where lateral storm-water drains have not yet been constructed, or the diversion of the storm-flow in so-called relief or diversion drains.

In regard to the conditions at Leadenhall and Stockholm Streets, and at Leadenhall and Ostend Streets, where it is shown by the attached correspondence that flooding has occurred in recent years during heavy storms, a careful study has been made of the existing conditions and the character and extent of the drainage area. For a better understanding of the situation a blueprint is hereto attached, showing the drainage area and the existing and proposed storm-water drains.

The properties most seriously affected are those of F. X. Ganter & Son, at the northwest corner of Leadenhall and Stockholm Streets, and Furst Brothers, at the northeast corner of Leadenhall and Stockholm Streets. Serious damage resulted to the property of F. X. Ganter & Son, particularly during the storm of August 25, 1911.

This section of the City has been built up on the low-lying flat land adjacent to the Spring Gardens waterfront, and, combined with the reverse slopes due to the incomprehensive system of street grading, has made the problem of drainage in this section of the City very difficult.

This section of the City is now drained by the old Race Street Sewer. This sewer extends from the B. & O. R. R. tracks at Ostend and Leadenhall Streets, through private property to Stockholm Street, to Race Street, to Cross Street, and terminates at Cross and Charles Streets. It has been

constructed piece-meal, with a variety of sections, varying in size from a rectangular section 11 feet wide by 5 feet high to a flat arch section with a flat bottom, 11 feet wide by 2½ feet high. Branch sewers were also constructed in Leadenhall and Stockholm Streets in recent years by the City Engineer, which sewers are particularly discussed by the City Engineer and certain of the complainants in the attached correspondence.

By reason of the reverse slopes in the street surfaces in Ostend Street, west of Leadenhall Street, and in Leadenhall Street, north of Stockholm Street, low places, generally known as "sumps," occur opposite the northeast and southwest corners of the Ganter factory. In case of any stoppage in the existing sewers or inlets, or lack of capacity in the same, flooding of this property will necessarily occur. These "sumps" are also the low points in the drainage area of 125 acres. The area in question is only partially drained; long lines of necessary laterals remain unconstructed, so that in times of storm large quantities of rainwater flow over the surface to the nearest inlets on the old trunk drain. The result is, during "maximum" storms, that the rapid accumulation of flood waters at these inlets causes the flooding of the low-lying streets and cellars.

A careful survey was made of the old drains in this territory after the storm of August 25, and it was discovered that a deposit of considerable depth existed on the bottoms of the drains. The outlet section of the Race Street Sewer, between the B. & O. R. R. tracks and Stockholm and Leadenhall Streets, was also found to be in a very bad condition. This section of the sewer is little less than a rough, rectangular stone sewer, with a poorly-paved bottom, and covered with a roof of plank flooring supported by wooden joists. Every six feet of the roof is strengthened by an iron truss-rod extending well into the cross-section of the sewer. These truss-rods, with their collection of filth, tend seriously to reduce the cross-

section and, consequently, the capacity of the sewer. This section in particular, the mouth of which is tidelocked and the bottom of which is below tide level, was found to contain considerable amounts of deposits of silt and sewage solids.

The 36-inch circular drains constructed in recent years by the City Engineer and referred to particularly in the attached correspondence, lying in the bed of Leadenhall Street, between West Street and the junction of the old Race Street Sewer south of Stockholm Street, were also found to contain large amounts of deposits.

A considerable portion of the dirt which finds its way into the sewers goes in through the untrapped inlets, and it is a matter of common knowledge that the street cleaners, in order to lighten somewhat their labors, are accustomed to pushing the street sweepings into the inlets, thus allowing large quantities of dirt to be washed into the sewers. It must be borne in mind, however, that it is much more expensive to remove deposits of dirt from the sewers by hand than it is to remove them from the surfaces of the streets by carts.

As the cross-section of the sewer was found to be materially reduced by such deposits at the time of our examination after the storm of August 25, it is reasonable to assume that the cross-section available for storm flows was considerably less before the storm mentioned, as during periods of maximum flow considerable scouring action, with a material reduction of the silt deposits, must have taken place.

If this system of drains had been maintained in a perfectly clean condition at all times, it is undoubtedly true that the capacity of the drains during "maximum" storms, when flooding has occurred in this territory, would have been greatly increased and much less damage would have resulted.

Our calculations show that for a 4-inch rainfall the old drain itself would probably have been adequate, although flooding would have resulted from the rainfall of August 25,

where the recorded intensity of the storm was 6.75 inches an hour. Our calculations show, however, that the deposits of silt and debris so reduced the capacity of the drain that during a 4-inch rainfall the hydraulic gradient would reach the street surface a short distance from the outlet.

In addition to the deposits of silt, the 36-inch pipes laid in Leadenhall Street by the City Engineer are inadequate for a 4-inch rainfall. These pipes enter the main drain on the bottom, so that when the latter is flowing full the hydraulic grade lines of these pipes, which were intended to prevent flooding in the vicinity of the Ganter and Furst factories, are so materially reduced that the drain is unable to care for the tributary area. The upper ends of the trunk drain, under such conditions, therefore, refused to relieve the street surfaces of their flood waters and flooding at the low points was the natural result.

The causes of the flooding in this territory can be summarized as follows:

1. Reduction in capacity of the Race Street Sewer, due to silt deposits.

2. Incapacity of the 36-inch pipes in Leadenhall Street draining the "sumps" at the northeast and southwest corners of Ganter's factory.

3. Lack of lateral storm-water drains, or incompletion of the drainage system for this territory.

The serious flooding which resulted during the storm of August 25 can be practically corrected by the extension of the lateral drains shown on the attached blueprint in red (omitted); the reconstruction of the old portion of the drain through private property, between the points "A" and "B," and the enlargement of the 36-inch pipes constructed in Leadenhall Street, south of Cross Street, in connection with the extension of the lateral drains.

In reconstructing the section of the old drain, between the points "A" and "B," south of Leadenhall and Stockholm Streets, the invert grade of the new section should be laid at a much lower elevation in order to confine the hydraulic gradient in the system, as a whole, below the street surface.

The idea seems to have been considered, in designing the old drain, that the drain bottom should have as much slope as possible, in the belief that the bottom slope controlled the velocity of the flow of the drain. This, of course, is a mistaken idea, as the flow of the drain is backed up by the tides and the deposition of silt and solids is favored by the checked velocities.

It will also be both desirable and necessary, after the extension of the laterals and the reconstruction of that portion of the old drain between the points "A" and "B" and the enlargement of the 36-inch pipes existing in Leadenhall Street, south of Cross Street, to introduce catch-basins on the entire system in general, as has been done in the case of the Harrison Street and Saratoga Street Intercepting Storm-Water Drains. This will prevent silt deposits inside the drains, and the removal of street sweepings can be made more cheaply from the catch-basins.

* * * * * * *

The storm-water appropriation for the year 1912 will cover the improvements above outlined.

In regard to the flooding at North Avenue, east of Slingluff Avenue, which was brought to the attention of His Honor, the Mayor, by Charles Herbold & Sons, who are building a row of houses on the north side of North Avenue, east of Slingluff Avenue, I beg to say that this correspondence is the first intimation we have received of trouble at this point due to the apparent incapacity of the drains, which were constructed by the City Engineer's Department in the last few years, resulting in the overflow of storm-water on the property of the complainant.

There is a pocket in the grade of North Avenue, east of Slingluff Avenue. Inlets have been placed along the curb at the "sump" which connect directly with the culvert carrying Peck's Branch under North Avenue at this point. In case of heavy storms, any deficiency in the capacity of the storm-water drains, or the lack of lateral storm-water drains, would cause the surcharging of the inlets at the "sump" above mentioned. This would necessarily cause the water to overflow the street surface and flood the cellars of adjoining property. It appears that complaint regarding the trouble in this vicinity was first made by Herbold & Sons to the City Engineer, and Mr. Fendall called attention to the fact that the gutters around the inlets had been obstructed by large masses of building material, which had greatly added to the trouble complained of.

On investigating the matter I find also that the street around the inlets was almost completely blocked with building material, such as mortar boxes, paving stone, brick, sand and lumber. It was apparent that, had a heavy storm occurred on the day of our investigation, the inlets would have been entirely cut off. There can be little doubt that the trouble complained of was greatly aggravated by this material.

In connection with the paving of West North Avenue, the City Engineer constructed a drain in North Avenue, between Slingluff Avenue and Windsor Mill Road. Our calculations show that this drain is entirely too small to take care of the flood waters of the drainage area it is intended to drain. In times of "maximum" storms, therefore, large quantities of storm-water would necessarily flow by the inlets appurtenant to the drain, and collect at the "sump" east of Slingluff Avenue. The drain constructed by the City Engineer, however, did not complete the drainage of the area tributary to the "sump" in North Avenue, east of Slingluff Avenue. There still remain unbuilt several lines of lateral storm-water drains. Flooding will necessarily occur at times of exceptional storms unless these lateral drains are completed.

I attach hereto a blueprint (omitted) showing the point of flooding, the outlines of the drainage area, and the existing and proposed storm-water drains. In order to relieve the inadequate existing drain west of Slingluff Avenue, it will be necessary to intercept a portion of the territory north and west of Eighth Street and North Avenue by the system of proposed drains, shown in red on the blueprint, west of Slingluff Avenue. The proposed lateral in North Avenue, east of Slingluff Avenue, is also required to take care of the run-off from the drainage area beginning at the summit east of Second Street.

The causes of the flooding at North Avenue, east of Slingluff Avenue, can therefore be summarized as follows:

1. The partial blocking of the inlets by the building material at the "sump" in North Avenue, east of Slingluff Avenue.

2. The inadequacy of the existing drain constructed by the City Engineer.

3. The incompletion of the storm-water drainage system for this area, or the lack of storm-water laterals.

The storm-water appropriation for 1912 covers the proposed drains shown in red on the blueprint. The construction of these drains and the interception of the existing drain should relieve the flooding complained of.

There is no correspondence attached with reference to the flooding at Fairmount and Kenwood Avenues. This matter was brought to our attention, however, by the Law Department, with reference to a claim for damages by certain parties living on Fairmount Avenue, near Kenwood Avenue. Serious flooding is reported to have occurred at this point during the storm of August 25, 1911.

This portion of Fairmount Avenue lies in the Harris Creek Drainage Area and is drained by a 48-inch lateral storm-water drain which connects with the Ogier's Run Trunk Drain at a point in Patterson Park. The Ogier's Run Trunk Drain

discharges into the Harris Creek Trunk Drain, which passes through Patterson Park on the line of Lakewood Avenue extended. All of these drains, including the Streeper Street Lateral and the Ogier's Run and Harris Creek Trunk Drains, were constructed by the City Engineer's Department before the present Sewerage Commission was created.

I have had an investigation made of the damage done by the storm, which shows that the cellars of properties on Fairmount Avenue, between Kenwood Avenue and Patuxent Street, were flooded, due to the accumulated depth of storm-water, during the storm of August 25, 1911.

The flooding of these properties was due to the following causes:

1. The insufficient capacity of the Streeper Street Drain, which drains the streets in this vicinity, and the lack of storm-water laterals.

The drainage area tributary to the 48-inch Streeper Street Drain at Fairmount Avenue and Streeper Street is approximately 72 acres. About one-half of this area is properly drained by lateral drains and inlets, and the other half is without storm-water drains. The effect of this is that large volumes of storm-water are caused to flow over the street surfaces, collecting at the low point in the drainage area, which is at the intersection of Fairmount Avenue and Streeper Street, where the properties in question are located. In addition to this fact, the Streeper Street Drain is inadequate to care for the run-off of a drainage area of 72 acres produced by a 4-inch rainfall.

2. The inadequacy of the Harris Creek Trunk Drain, of which the Streeper Street Drain is a lateral. Not only is the lateral drain insufficient, but the trunk drain is also inadequate to care for the run-off of storms of great intensity. The result is that backflooding of the drains causes flooding of the surfaces of the streets at the low points in the drainage area, such as the intersection of Fairmount Avenue and Streeper Street.

3. Flooding was to be expected in this drainage area, due to the storm of August 25, 1911, for the reason that the downpour was over 30 minutes in duration, with a recorded rate of rainfall of 6.75 inches an hour. Granting that the old storm-water drains intended for the drainage of this territory are adequate, a certain amount of flooding should have been expected in this instance (even though the drains were of sufficient capacity to care for a 4-inch rainfall); and, therefore, it would seem that the City of Baltimore cannot be held responsible for any damage which was caused by the severe storm of August 25, 1911.

I wish to emphasize the fact that the Sewerage Commission are in nowise responsible for the existence of these old storm-water drains, which are known to be inadequate—the same having been constructed many years ago by the City authorities having charge of drainage matters. I would say, however, that the plans adopted by the Commission are designed to relieve the serious conditions in this vicinity, and the work of relief will be undertaken during the year 1912. This work will involve the construction of the Ogier's Run Relief Drain, intercepting the present Ogier's Run Drain at Lombard and Patuxent Streets, and also the construction of a lateral drain in Patuxent Street, which will intercept the flood waters which concentrate at this intersection during heavy rainfalls, in Fairmount Avenue, between Kenwood Avenue and Patuxent Street.

There is no correspondence attached with reference to the flooding in the 900 block North Bond Street. The cellars in the vicinity of Bond and Abbott Streets were slightly flooded during the storm of August 25, 1911, due to the fact that this territory has not yet been completely drained.

The intersection of Bond and Abbott Streets is graded in the form of a pocket, so that the flood waters from the hills north of Abbott Street and east of Bond Street collect in the

said pocket to such an extent that the inlets at Bond and Abbott Streets are not of sufficient size to carry off the flood waters.

We now have under construction a system of lateral storm-water drains, known as the Bond Street System, which will relieve the trouble that occurred during the storm of August 25. This system should be completed before the end of the year.

As pointed out above, it must be borne in mind that the storm of August 25 was of maximum intensity and that the rate of rainfall was much greater than 4 inches an hour, which factor we are using as a basis in the design of the storm-water drainage system.

The 2300 block Boston Street consists of a row of houses on the north side of the street, between Leakin Street and Montford Avenue. This section of the City, along the harbor front between Chester and Luzerne Streets, has not yet been provided with storm-water drains.

The cause of the flooding which has been brought to the attention of His Honor, the Mayor, in the attached petition signed by the residents of the 2300 block Boston Street, was due to the fact that no storm-water drains have yet been constructed in this section of the City. The attached blueprint (omitted) shows the location under discussion and the proposed storm-water drains necessary for the relief of this territory. This system is included in the list of drains to be constructed during the year 1912.

The flooding at Baltimore and Patuxent Streets was of the same nature as that which occurred at Fairmount Avenue and Kenwood Avenue, both of which points are in the same drainage area and only a few hundred feet apart. The causes of the flooding are identical and fully covered by the report of the flooding at Fairmount and Kenwood Avenues.

Yours truly,

(Signed) CALVIN W. HENDRICK,
Chief Engineer.

The introduction of the storm-water drainage system is bringing a much-needed relief and aiding the development of property, thereby greatly increasing the taxable basis.

SEWAGE DISPOSAL PLANT.

At the Sewage Disposal Plant we have completed and ready for service three hydrolytic tanks, three sludge-digesting tanks, twelve acres of broken-stone sprinkling filters, together with two settling basins—being sufficient to take care of a population of about 300,000. A part of these are now in actual service and additional units will be added in the near future.

The concrete Chemical and Biological Laboratory and Administration Building is practically completed, with the exception of a few finishing touches. It is a very artistic building, designed especially for the purposes for which it is intended, and will be one of the most complete in America.

Through the experiments conducted at the Walbrook Testing Station, we have arranged our Disposal Plant so as to eliminate the sand beds included in the report on the Disposal Plant, made by the Board of Advisory Engineers, thereby saving about $1,000,000 in construction and an annual maintenance cost of $60,000, proving that the laboratory and testing department is a very important adjunct to our great work.

The Disposal Plant is so constructed that if, at any time, we wish to treat the sewage with calcium hypochlorite, or bleaching powder, we can do so.

In this connection, I submit the following interesting statistics regarding the work of the laboratory and testing department at Walbrook.

WALBROOK TESTING STATION.

REASONS FOR ESTABLISHING TESTING STATION AND OBJECTS SOUGHT.

Following out the recommendations of the Advisory Board of Engineers, the Testing Station was designed and a site selected as described in the report of the Commission for

the year 1906. The principal objects sought in the investigations at this Testing Station were the determination of the best size of stone to use in the sprinkling filters and the most efficient depths of bed which could be economically constructed.

In regard to the size of broken stone in sprinkling filters, there was considerable difference in practice at different places. The use of fine stone is preferable so long as it remains unclogged, because, other things being equal, it gives a greater degree of purification. On the other hand, the use of coarse stone diminished the tendency to clog.

In regard to the depth of beds, there is a considerable difference of opinion among engineers as to the proper depth to use. If the beds are too shallow, sewage flows through so rapidly that there is no time for purification to take place; while, if the beds are too deep, they do not ventilate as well as the shallower beds, the amount of head consumed becomes an objection and the purification effected for each additional foot of depth is not proportional to the increase in depth of the bed. It was, however, thought possible that the deeper beds would give an effluent sufficiently pure to allow it to be discharged into Back River without requiring any supplementary treatment by intermittent sand filters.

DESCRIPTION OF THE TESTING STATION.

In the original work of the Testing Station, it was not considered necessary to try to secure experimental results from the sedimentation tank, as it was believed by the Consulting Engineers that there had been sufficient data secured at other places to show that a tank with a six to eight hour period of sedimentation gave the best results. The sedimentation tank originally designed had a capacity of approximately 16,000 gallons, which would give eight hours' detention with 50,000 gallons of sewage, but the increased sewage flow over that originally estimated and the rapid accumulation of solids

in the tank, due to the freshness of the sewage, greatly shortened the period of detention, and considerable difficulty was experienced in keeping the nozzles of the sprinkling filters from clogging owing to the solid matter passing through the tank. The matters which caused the greater part of the clogging were match sticks and balls of grease. It was finally decided to increase the period of sedimentation by constructing a Dortmund tank between the original tank and the sprinkling filters. This was suggested by the excellent results obtained at Birmingham, England, where a Dortmund tank was placed between a septic tank and the sprinkling filters. The capacity of this Dortmund tank was between five and six thousand gallons. This tank was placed in operation on January 1, 1908.

SPRINKLING FILTERS.

The sprinkling filters were really the important part of the Testing Plant, and the work was designed for the purpose, already noted, of determining the economic depth of filtering material consistent with a high degree of purification, and also to secure a comparison of results obtained by the use of different sizes of stone. Two filtering units were built of approximately an eightieth of an acre each. Each one of these units was sub-divided into six parts containing two beds 6 feet in depth, two beds 9 feet in depth and two beds 12 feet in depth. The unit hereinafter called Filter No. 1 had a bed of each depth filled with ½-inch to 1½-inch stone and a bed of each depth filled with 1-inch to 2-inch stone. The other unit, called Filter No. 2, had a bed of each of the three depths filled with 2-inch to 4-inch and 4-inch to 6-inch stone. The bottoms of the filters were covered with systems of underdrains similar to the half-round tile underdrains used at Columbus, O., with a main drain for each bed into which

these half-round drains discharge. The sewage was distributed over the surface of the sprinkling filters by means of revolving arms which made a revolution approximating once a minute. These revolving arms consisted of 4-inch wrought iron pipe, and were caused to rotate by means of electric motors. These arms were perforated and were originally designed for three nozzles so spaced as to give an equal distribution over the surface of the bed. It was found impossible, however, to secure a uniform distribution with the three nozzles, and two additional nozzles were added, giving five nozzles, and with these five nozzles, a practically uniform distribution was secured over the surface of the stone. In fact, this distribution was much more uniform over the entire surface than can ordinarily be obtained in actual practice.

The filters were operated as originally constructed until the month of April, 1908, although no analyses were made of the effluents from the coarse stone beds of 4-inch to 6-inch material after March 5, as the results secured showed the effluents to be so poor that this large stone could not by any possibility be considered for use in the main Disposal Plant. During the months of April and May, 1908, the filtering material was entirely removed from the 6-feet and 9-feet beds containing ½-inch to 1½-inch stone and from the beds of the same depth containing 4-inch to 6-inch stone. In place of the 4-inch to 6-inch stone in the 6-feet and 9-feet beds, a stone 1-inch to 3-inch in size was substituted. The original 6-feet and 9-feet beds, from which the ½-inch to 1½-inch stone was removed, were refilled with 1-inch to 3-inch stone, but only to depths of 4½ feet to 7½ feet, while the 12-feet filter of ½-inch to 1½-inch stone was reduced to a depth of 10½ feet, and the 6, 9 and 12-feet beds of 1-inch to 2-inch stone were reduced to 4½, 7½ and 10½ feet in depth. The object of these changes was to experiment very fully in beds of the different depths with a size of stone which, it seemed at the time, was the most likely to be adopted for use in the main Disposal Plant.

SETTLING BASINS.

Each of the 12 filters was connected to a small settling basin which was designed to hold two hours' flow of sewage. The increased amount of sewage received at the Station after October reduced this period of detention in the final settling basins—in some cases giving only a little over one hour's detention.

QUALITY OF SEWAGE.

Altogether there are 336 houses connected to the sewers tributary to the Testing Station, and a careful house-to-house canvass was made to ascertain the number of people in these houses. The amount of sewage reaching the Station and the contributing population during the different months are shown by the following table:—

TABLE A.

POPULATION CONNECTED TO WALBROOK SEWERS.

Month—Year.	Population.	Gallons per 24 Hours.	
		Total.	Per Capita.
August, 1907	553	24,400	44
September, 1907	952	55,500	58
October, 1907	1,132	50,100	44
November, 1907	1,206	79,100	66
December, 1907	1,236	79,200	64
January, 1908	1,236	88,900	72
February, 1908	1,236	91,300	74
March, 1908	1,236	79,300	64
April, 1908	1,236	94,854	72
May, 1908	1,236	94,600	72
June, 1908	1,236	70,210	57
July, 1908	1,236	87,533	71
August, 1908	1,236	71,571	59
September, 1908	1,236	76,750	62

The flow of sewage reaching the Station was measured as it passed over a triangular-notch weir, cut in a piece of sheet iron about one-eighth of an inch thick, and arrangements were made so that a float communicated the head of sewage on the weir to a paper record revolved by clock-work, thus making it possible to secure a continuous record of the rate of flow both night and day. The head on the weir was communicated to the paper record through a cam motion designed to make the record reading directly proportional to the flow of sewage. With this arrangement, it was possible to ascertain the amount of sewage passing over the weir each day by measuring the area of the record with a planimeter. This apparatus made it possible to secure very accurate records of the sewage flow during the entire time of the experimental work.

The amount of ground water reaching the sewers varies greatly with the rainfall. In June, 1907, before any houses were connected to the sewers, this ground water flow varied from 8,000 gallons per day in dry weather to 20,000 gallons per day during rainy weather. The length of sewer laid by the contractor in Walbrook amounted to 2¾ miles, so the ground water infiltration amounted at that time to from 2,900 gallons to 7,300 gallons per day per mile. During a heavy storm on June 5, 1907, before any houses were connected to the sewers, the storm flow amounted to 150,000 gallons per day. The greater part of this water was surface water, which entered the sewers chiefly through the ventilation openings in the manhole covers, six ventilation holes, each one inch in diameter, being provided in each cover. Most of the manholes are placed at the low points in the middle of the alleys and during heavy rains the tops of the manholes are flooded, which allows the water to pour into the sewers through all ventilation holes. Considerable water also enters the sewer through the crack between the manhole head and the cover. That the greater part of the water

passing through the sewers washes from the surface of the ground during a heavy rain was readily seen by the muddy condition of the sewage and the amount of sand and dirt it carried when it reached the Testing Station.

CHARACTER OF SEWAGE.

The sewage was altogether from a residential section, there being no trade wastes of any kind. The buildings, other than residences, in this section were three churches, two drug stores, six grocery and provision stores, two notion stores, one confectionery store, one plumber shop, one laundry, one tailor shop and one shoe repairing shop. None of these buildings, however, contributed any sewage which would have any influence upon the purification process. The sewage from the nearest house reaches the Plant in about fifteen minutes, while the sewage from the most distant house reaches the Station in about twenty-five minutes. It will thus be seen that the sewage is very fresh. The feces reached the Station with very little disintegration, and this condition made it difficult to secure representative samples of raw sewage. As in many other cases where fresh sewage is treated in tanks, a great deal of scum, or floating matter, collected in the tanks.

It is not anticipated that the sewage reaching the main Disposal Plant at Back River will in any way resemble the fresh sewage reaching the Walbrook Testing Station, as the Outfall Sewer alone is more than five miles in length after passing the eastern City limits. The Walbrook tank, although it was designed to hold eight hours' flow of sewage, acted merely as a settling tank, as was evidenced by the presence of nitrates and nitrites in the tank effluent.

METHODS OF OPERATION.

The filter beds, as described elsewhere, were divided into two entirely separate sets—one consisting of the fine stone beds of ½-inch to 1½-inch and 1-inch to 2-inch stone, and

the other consisting of coarse stone beds of 2-inch to 4-inch and 4-inch to 6-inch stone.

When the Station was first put into operation, it was intended to operate and rest the two sets of filters alternately for periods of one week, as recommended at Columbus, O., from the results of the experimental work carried on in that city. However, on account of the small flow of sewage, largely diluted with ground water, which reached the Station after starting operation, the fine stone beds were kept in continuous operation from the starting of the Station on August 1, 1907, to September 20, 1907, in order to give the beds a chance to ripen.

The large stone beds in Filter No. 2 were placed in operation on September 1, but owing to difficulties with the mechanical devices for rotating the sprinkling arm this filter could not be operated regularly until September 20. The sewage, therefore, was kept on the fine stone beds in Filter No. 1 continuously until this date. On this latter date the sewage flow was transferred to the large stone beds in Filter No. 2, which was kept in operation until October 22, at which time the sewage flow was again turned on the fine beds.

It was found that, after periods of rest, the effluent would be very poor for the first day and it required several days' operation to secure an effluent as good as could be obtained when the filters were operated continuously. No evidence was found that the solid accumulations in the filters dried and cracked and peeled from the filtering material, as was stated to be the result in the Columbus works, excepting possibly on the filtering material at the surface of the beds, which was exposed to the drying action of the sun and wind. There was no cracking and peeling of the accumulations on the filtering material within the body of the bed. During periods of operation of the filter, these accumulations were of a glutinous character, but, during the resting periods, this solid matter lost its glutinous character, becoming granular

and earthy and rapidly washing through the bed when the operation of the bed was resumed. As, furthermore, sprinkling filters were being operated successfully abroad upon the continuous principle, and had been operating at the Massachusetts Institute of Technology on the same principle, it was decided to operate the filters at the Walbrook Testing Station continuously. This was not only desirable, but the increased quantity of sewage over that originally planned for, practically made it necessary to operate continuously. Therefore, after the first part of December the filters were operated upon the continuous principle, with the exception of short rests, varying in length from a few hours to several days, when a filter would be out of operation on account of mechanical breakdowns in the Station.

Until the middle of March, 1908, the study of the operation of the filters was carried out very thoroughly and systematically. After this time, the beginning of design and construction work in connection with the main Disposal Plant at Back River made it necessary to give an increasing amount of attention to this work, with a consequent lessening in the number of men available for the work at the Testing Station.

The sampling, as described later, was changed so that it covered a period of twelve days instead of a period of three days, in order to lessen the number of routine analyses, thus allowing the analytical work to be done with the men who were available for this purpose. It was also thought desirable to concentrate the work of the Testing Station upon the disinfection of the filter effluents, and a large part of the time of the men who were working at the Testing Station was given to carrying on the disinfection experiments.

Another thing which reduced the time available for the analytical work at the Testing Station was the fact that a considerable portion of the time of the men at the Testing Station was occupied in working up the analytical results already obtained so that these results would be available in connection with the design of the main Disposal Works.

For the above reasons, the results which are shown in connection with the operation of the filter beds after the changes were made in the sizes of stone and depths of filters are not really comparable with the results obtained from the time of commencing operation of the Plant until the middle of March, 1908. Therefore, in comparing the results obtained with different sizes of stone and depths of bed, the results obtained after the changes were made at the Station were not used with the exception of those with 2-inch to 4-inch stone of the three depths and the 4-inch and 6-inch stone of 12 feet depth, none of these beds being affected by the changes.

Sampling of Sewage and Effluents.

CHEMICAL.

The composite method of collecting samples for routine analyses was followed throughout, and from August 1, 1907, to March 4, 1908, the Station was under very close laboratory observation.

The samples were made up of 50 c. c. portions, taken at intervals as described below, and were preserved in large bottles, by the addition of 10 c. c. of chloroform, until analyses could be completed. From August 1 to January 1, the composite samples covered a period of two days and were made up from small samples taken every hour from the filter effluents and every half hour from the raw sewage and the settled sewage. From January 1 to March 14 the composites covered a period of three days—small samples being taken from effluents every two hours and from the raw sewage and the settled sewage every hour. After this date the composites generally covered a period of twelve days, but in some cases the period was six days—small samples being taken from effluents every four hours and from raw sewage and the settled sewage every two hours.

BACTERIOLOGICAL.

Samples for routine gelatine counts were taken from the raw sewage and the settled sewage daily, and on alternate days from the effluents of the fine stone and coarse stone beds, except at such times as the use of the laboratory apparatus for special work made it necessary to omit the routine work.

METHODS OF ANALYSIS.

Nitrates, oxygen consumed, dissolved oxygen and both total and fixed suspended solids were determined strictly in accordance with the methods of procedure described in the report of the Committee on Standard Methods of Water Analysis to the Laboratory Section of the American Public Health Association. The procedures followed in the other determinations are given below:

ORGANIC NITROGEN.

The method used was substantially that described by Whipple in Vol. IV of the Contributions of the Sanitary Research Laboratory and Experiment Station of the Massachusetts Institute of Technology. Briefly, it is as follows: Fifty c. c. of the sample are digested with 5 c. c. of concentrated sulphuric acid until colorless and the oxidation completed by the addition to the hot acid of a few small crystals of potassium permanganate. After cooling, the digestate is diluted to 250 c. c. and thoroughly mixed. Twenty-five c. c. are then pipetted into a 100 c. c. nessler tube, 25 c. c. of 5% potassium hydrate added, and the whole brought up to volume with ammonia-free water and mixed by pouring. Half the quantity is then filtered and 20 c. c. of the filtrate pipetted into a 50 c. c. nessler tube, diluted to volume with ammonia-free water, mixed by pouring and nesslerized. To obviate any error being introduced by nitrogen-carrying re-

agents, a control should be run on the entire process. It may also be necessary to wash the filter papers with ammonia-free water. With this procedure no difficulty was experienced in obtaining uniformly clear nesslerizations, and the elimination of the slow distillation process, with its cumbersome apparatus, proved to be a decided advantage.

FREE AMMONIA.

The procedure for direct nesslerization outlined in Standard Methods was followed until, from some unknown cause, it became impossible to obtain clear nesslerizations. Investigation demonstrated that 1 c. c. of a suspension of zinc oxide, 4 grams to the liter, used in place of the copper sulphate, provided a satisfactory coagulant and the procedure was modified accordingly, with the result that no further difficulty was experienced.

NITRATES.

The reduction method was discarded at the outset on account of the time it consumed and in its stead the so-called "Brucine" method was used. This method, though known not to be a delicate one, was considered sufficiently accurate for the purpose in hand. It was thought, however, that perhaps a procedure involving the nitration of some other alkaloid than Brucine might give more satisfactory results and, as the work progressed, investigations were carried on with this idea in view. These investigations resulted in the development of a method in which the basic reagent is the alkaloid narcotine. The detailed procedure which follows was used during the greater part of the work.

Preparation of standards and samples: Five standards are prepared by placing in small 5-inch tubes 1 c. c. of solutions containing, respectively, 0.000000, 0.0000005, 0.000001, 0.000002 grams of nitrogen in the form of potassium nitrate.

Samples of 1 c. c., or less diluted to 1 c. c., are placed in similar tubes, after having been clarified by filtration if necessary.

Preparation of narcotine reagent: 0.1 gram of narcotine is weighed out and dissolved in 50 c. c. of sulphuric acid as quickly as possible, with the aid of a stirring rod. As soon as the narcotine is completely in solution, 2 c. c. of reagent are quickly added to both the samples and the standards and the contents of each tube thoroughly mixed by twirling. Readings are made in from fifteen to twenty-five minutes. By this procedure nitrates can be determined with rapidity and with fair accuracy within a range of 0.5 part per million to 20 parts per million. Below are given the results of a series of determinations made on solutions prepared in the laboratory, but unknown to the operator. The results are expressed in parts per million:

Actual Amounts.	Amounts as Determined.
1.0	1.2
1.5	1.5
3.0	3.0
5.0	6.0
10.0	11.0
30.0	30.0

BACTERIOLOGICAL.

In general, the methods of bacteriological analyses recommended by the Committee on Standard Methods of Water Analysis to the Laboratory Section of the American Public Health Association were followed. For routine observation of the different filter beds, counts were made of gelatine plates incubated at 20° C.

In connection with the experiments in disinfection of filter effluents, gelatine counts, in accordance with the above-mentioned methods, were made, and also counts of litmus-lactose-agar plates incubated at 37° C., which indicated the

number of acid-forming bacteria, as well as the total number of bacteria, in the effluents, both before and after the application of bleach solution. In addition, the presence of B. Coli was determined quantitatively by the fermentation of lactose bile; the results being reported as the reciprocal of the highest dilution showing a positive test.

Explanation of Analytical Results.

Individual analyses of the composite samples of sewage and effluents are shown in the tables in Appendix 1. From the results shown in this Appendix, Tables B, C, D and E, showing the average results, were compiled. The average results here shown are not the numerical averages of the results of the analyses given in the appendix, but are the weighted averages—the analyses of the individual composite samples being weighted according to the number of days during which each composite sample was taken.

The analyses of raw sewage, settled sewage, filter effluents and settled effluents are all shown in heavy type. The small type figures above the analytical results for the settled sewage, the filtered effluents and the settled effluents show the percentage reduction based upon the raw sewage. The small type figures immediately below the analytical results of the filtered effluents and the settled effluents show the percentage reduction based on the settled sewage. The second row of small type figures below the analytical results of the settled effluents show the percentage reduction based on the filtered effluents. With these tables as a basis, the diagrams shown in Figures 1 and 2 were plotted, except as to the parts pertaining to relative stability numbers, the information for which was obtained from Table G (pages 67 to 69).

TABLE B.

WEIGHTED AVERAGES OF ANALYTICAL RESULTS.

	Depth of Bed	PARTS PER MILLION											
		Susp'd Solids			NITROGEN AS						Oxygen Consumed	Bacteria per C. C.
					Organic							
		Total	Loss on Ignition	Fixed	Total	Solution	Susp.	Free Ammonia	Nitrites	Nitrates		
Raw Sewage		**166**	**135**	**31**	**21**	**16**	**5**	**19**	**0.20**	**1.4**	**62**	**2 600 000**
Settled Sewage		57.2 **71**	57.7 **57**	54.8 **14**	23.8 **16**	18.8 **13**	40 **3**	0.0 **19**	**0.17**	**1.1**	19.4 **50**	38.5 **1 600 000**
		½" to 1½" Stone										
Filtered Effluent	6′	72.3 **46** 35.2	76.3 **32** 43.9	54.8 **14** 0.0	53.3 **9.8** 38.8	51.3 **7.8** 40.0	60.0 **2.0** 33.3	31.7 **13** 31.6	**0.61**	**11**	66.1 **21** 58.0	88.9 **290 000** 81.9
Settled Effluent	6′	84.9 **25** 64.8 45.7	86.7 **18** 68.4 43.8	77.4 **7** 50.0 50.0	55.7 **9.3** 41.9 5.1	50 0 **8.0** 38.5 -2.6	74.0 **1.3** 56.7 35.6	31.7 **13** 31.6 0.0	**0.59**	**10**	71.0 **18** 64.0 14.3	93.5 **170 000** 89.4 41.4
Filtered Effluent	9′	73.5 **44** 38.0	80.0 **27** 52.6	45.2 **17** -21.4	57.6 **8.9** 44.4	56.3 **7.0** 46.2	62.0 **1.9** 36.7	47.4 **10** 47.4	**0.55**	**15**	74 2 **16** 68.0	94.6 **140 000** 91.3
Settled Effluent	9′	83.1 **28** 60.6 36.4	86.7 **18** 68.4 33.3	67.7 **10** 28.6 41.2	57.6 **8.9** 44.4 0.0	55.0 **7.2** 44.6 2.9	66.0 **1.7** 43.3 10.5	47.5 **10** 47.4 0.0	**0.54**	**16**	75.8 **15** 70.0 6.3	95.4 **120 000** 92.5 14.3
Filtered Effluent	12′	74.1 **43** 39.4	81.5 **25** 56.1	41.9 **18** -28.6	56.7 **9.1** 43.1	51.3 **7.8** 40.0	74.0 **1.3** 56.7	60.5 **7.5** 60.5	**0.57**	**18**	15.8 **15** 70.0	95.4 **120 000** 92.5
Settled Effluent	12′	83.8 **27** 62.0 37.2	88.1 **16** 71.9 36.9	64.5 **11** 21.4 38.9	56.2 **9.2** 42.5 1.1	53.7 **7.4** 43.1 5.1	64.0 **1.8** 40.0 -38.5	59.5 **7.7** 59.5 -2.7	**0.54**	**19**	75.8 **15** 70.0 0.0	95.8 **110 000** 93.1 8.3
		1" to 2" Stone										
Filtered Effluent	6′	52.4 **69** 2.8	62.9 **50** 12.3	38.7 **19** -35.7	43.8 **11.8** 26.3	41.9 **9.3** 28.5	50 0 **2.5** 1.7	21.0 **15** 21.1	**0.72**	**8.4**	56.4 **27** 46.0	91.2 **230 000** 85.6
Settled Effluent	6′	81.3 **31** 56.3 55.1	82.9 **23** 59.6 54.0	74.2 **8** 42.9 57.9	54.3 **9.6** 40.0 18.6	50.0 **8.0** 38.5 14.0	68.0 **1.6** 46.7 36.0	21.0 **15** 21.1 0.0	**0.72**	**8.7**	69.3 **19** 62.0 29.6	92.7 **190 000** 88.1 17.4
Filtered Effluent	9′	69.9 **50** 29.6	75.6 **33** 42.1	45.1 **17** -21.4	52.9 **9.9** 38.1	48.7 **8.2** 36.9	66.0 **1.7** 43.3	42.1 **11** 42.1	**0.85**	**15**	71.0 **18** 64.0	93.5 **170 000** 89.4
Settled Effluent	9′	82.5 **29** 59.2 42.0	85.9 **19** 66.7 42.4	67.7 **10** 28.6 41.2	57.6 **8.9** 44.4 10.1	53.1 **7.5** 42.3 8.5	72.0 **1.4** 53.3 17.6	36.8 **12** 36.8 -9.1	**0.76**	**15**	72.6 **17** 66.0 5.6	94.3 **150 000** 90.6 11.8
Filtered Effluent	12′	75.3 **41** 42.3	80.0 **27** 52.6	54.8 **14** 0.0	54.8 **9.5** 40.6	50.0 **8.0** 38.5	70.0 **1.5** 50.0	54.2 **8.7** 54.2	**0.71**	**18**	72.6 **17** 66.0	94.6 **140 000** 91.3
Settled Effluent	12′	81.9 **30** 57.7 26.8	85.9 **19** 66.7 29.6	64.5 **11** 21.4 21.4	58.6 **8.7** 45.6 8.4	51.9 **7.7** 40.8 3.8	80.0 **1.0** 66.7 33.3	53.7 **8.8** 53.7 -1.2	**0.71**	**18**	75.8 **15** 70.0 11.8	95.0 **130 000** 91.9 7.1

TABLE C.

WEIGHTED AVERAGES OF ANALYTICAL RESULTS.

	Depth of Bed	PARTS PER MILLION										
		Susp'd Solids			NITROGEN AS						Oxygen Consumed	Bacteria per C. C.
					Organic			Free Ammonia	Nitrites	Nitrates		
		Total	Loss on Ignition	Fixed	Total	Solution	Susp.					
Raw Sewage		158	131	27	19	14	5	18	0.16	1.2	64	3 100 000
Settled Sewage		56.3 69	56.3 57	55.6 12	15.8 16	7.1 13	40.0 3	0.0 18	0.16	1.2	25.0 48	45.1 1 700 000
		2″ to 4″ Stone										
Filtered Effluent	6′	63.3 58 15.9	66.4 44 22.8	48.1 14 -16.7	43.2 10.8 32.5	37.1 8.8 32.3	60.0 2.0 33.3	11.1 16 11.1	0.52	3.0	57.8 27 43.8	86 8 410 000 75.9
Settled Effluent	6′	78.5 34 50.7 41.4	79.4 27 52.6 38.6	74.1 7 41.7 50.0	46.8 10.1 36.9 6.5	42.1 8.1 37.7 8.0	60.0 2.0 33.3 0.0	11.1 16 11.1 0.0	0.49	3.2	68.7 20 58.3 25.9	89 0 340 000 80.0 17.1
Filtered Effluent	9′	58.9 65 5.8	63.4 48 15.8	37.0 17 -41.7	40.5 11.3 29.4	37.1 8.8 32.3	50.0 2.5 16.7	22.2 14 22.2	0.72	9.2	67.2 21 56.3	84.8 470 000 72.4
Settled Effluent	9′	80.4 31 55.1 52.3	82.4 23 59.7 52.1	70.4 8 33.3 52.9	50.5 9.4 41.3 16.8	45.7 7.6 41.5 13.6	64.0 1.8 40.0 28.0	22.2 14 22.2 0.0	0.71	8.5	70.3 19 60.4 9.5	91.3 270 000 84.1 42.6
Filtered Effluent	12′	69.6 48 30.4	74.7 33 42.1	44.4 15 25.0	48.9 9.7 39.4	41.4 8.2 36.9	70.0 1.5 50.0	33.3 12 33.3	0.78	13	68.7 20 58.3	91.7 290 000 82.9
Settled Effluent	12′	82.9 27 60.9 43.8	84.7 20 64.9 39.4	74.1 7 41.7 53.3	55.8 8.4 47.5 13.4	48.6 7.2 36.9 12.2	76.0 1.2 60.0 20.0	27.8 13 27.8 -8.3	0.76	12	76.6 15 68.8 25.0	92 9 220 000 87.1 24.1
		4″ to 6″ Stone										
Filtered Effluent	6′	50.6 78 -13.0	54.7 60 -5.3	33.3 18 -50.0	36.8 12 25.0	37.1 8.8 32.3	56.0 2.2 26.7	-5.6 19 -5.6	0.22	1.2	46.9 34 29.2	77.4 700 000 58.8
Settled Effluent	6′	72.8 43 37.7 44.9	74.7 33 42.1 45.0	62.9 10 16.7 44.4	34.7 12.4 22.5 -3.3	30.0 9.8 24.6 11.4	48.0 2.6 13.3 -18.2	-5.6 19 -5.6 0.0	0.27	1.2	54.7 29 39.6 14.7	77.1 710 000 58.2 -1.4
Filtered Effluent	9′	63.9 57 17.4	67.9 42 26.3	44.4 15 -25.0	42.1 11 31.3	37.9 8.7 33.1	54.0 2.3 23.3	-5.6 19 -5.6	0.38	2.1	62.5 24 50.0	81.0 590 000 65 3
Settled Effluent	9′	77.8 35 49.3 38.6	79.4 27 52.6 35.9	70.4 8 33.3 46.7	43.2 10.8 32.5 -1.8	37.9 8.7 33.1 0.0	58.0 2.1 30.0 8.7	-5.6 19 -5.6 0.0	0.37	2.3	64.1 23 52.1 4.2	83.1 510 000 70 0 13.6
Filtered Effluent	12′	65.8 54 21.7	70.2 39 31.6	44.4 15 -25.0	49.5 9 6 40.0	47.0 7.3 43.8	54.0 2.3 23.3	16.6 15 16.6	0.64	3 9	68.7 20 58 3	84.2 490 000 71.2
Settled Effluent	12′	79.1 33 52.2 38.9	81.7 24 57.9 38.5	66 6 9 25.0 40.0	56.8 8.2 48.8 14.6	51.4 6 8 47.7 6.9	72.0 1 4 53.3 39.1	11.1 16 11.1 -6.7	0.54	5.1	68.7 20 58.3 0.0	87.1 400 000 76 5 22.5

TABLE D.

WEIGHTED AVERAGES OF ANALYTICAL RESULTS

	Depth of Bed	Parts per Million										Bacteria per C. C.
		Susp'd Solids			Nitrogen as						Oxygen Consumed	
					Organic			Free Ammonia	Nitrites	Nitrates		
		Total	Loss on Ignition	Fixed	Total	Solution	Susp.					
Raw Sewage		**98**	**83**	**15**	**13.0**	**10.0**	**3.0**	**16**	**0.06**	**0.9**	**53**	**3 500 000**
Settled Sewage		40.8	42.2	33.3	23.1	13.0	56.7	-12.5			20.8	28.6
		58	**48**	**10**	**10.0**	**8.7**	**1.3**	**1.8**	**0.04**	**0.7**	**42**	**2 500 000**
		½″ to 1½″ Stone										
Filtered Effluent	10½′	72.4	77.1	46.7	59.2	55.0	73.3	66.9			73.6	
		27	**19**	**8**	**5.3**	**4.5**	**0.8**	**5.3**	**0.35**	**15**	**14**	
		53.4	60.4	20.0	47.0	48.3	38.5	70.6			66.7	
Settled Effluent	10½′	75.5	81.9	40.0	57.7	54.0	70.0	66.9			73.6	
		24	**15**	**9**	**5.5**	**4.6**	**0.9**	**5.3**	**0.28**	**15**	**14**	
		58.6	68.8	10.0	45.0	47.1	30.8	70.6			66.7	
		11.1	21.1	-12.5	-3.8	-2.2	-12.5	0.0			0.0	
		1″ to 2″ Stone										
Filtered Effluent	4½′	53.1	56.6	33.3	38.5	37.0	43.3	0.0			49.1	86.6
		46	**36**	**10**	**8**	**6.3**	**1.7**	**16**	**0.29**	**3.3**	**27**	**470 000**
		20.7	25.0	0.0	20.0	27.6	-30.8	11.1			35.7	81.2
Settled Effluent	4½′	79.6	79.5	80.0	46.2	36.0	80.0	6.3			66.0	89.4
		20	**17**	**3**	**7.0**	**6.4**	**0.6**	**15**	**0.31**	**3.5**	**18**	**370 000**
		65.5	64.6	70.0	30.0	26.4	53.8	16.7			57.1	85.2
		56.5	52.8	70.0	12.5	-1.6	64.7	6.3			33.3	21.3
Filtered Effluent	7½′	64.3	67.5	46.7	40.0	34.0	60.0	31.3			69.8	92.3
		35	**27**	**8**	**7.8**	**6.6**	**1.2**	**11**	**0.55**	**11**	**16**	**270 000**
		39.7	43.8	20.0	22.0	24.1	7.7	38.9			61.9	89.2
Settled Effluent	7½′	74.5	77.1	60.0	43.8	41.0	53.3	37.5			66.0	93.1
		25	**19**	**6**	**7.3**	**5.9**	**1.4**	**10**	**0.54**	**7.9**	**18**	**240 000**
		56.9	60.4	40.0	27.0	32.2	-7.7	44.4			57.1	90.4
		28.6	29.6	25.0	6.4	10.6	-16.7	9.1			-12.5	11.1
Filtered Effluent	10½′	67.4	71.1	46.7	46.2	50.0	33.3	57.5			67.9	93.8
		32	**24**	**8**	**7.0**	**5.0**	**2.0**	**6.8**	**0.57**	**17**	**17**	**250 000**
		44.8	50.0	20.0	30.0	42.5	-53.8	62.2			59.5	90.0
Settled	10½′	73.5	79.5	40.0	56.9	56.0	60.0	57.5			77.4	92.9
		26	**17**	**9**	**5.6**	**4.4**	**1.2**	**6.8**	**0.53**	**16**	**12**	**230 000**
		55.2	64.6	10.0	44.0	49.4	7.7	62.2			71.4	90.8
		18.8	29.2	-12.5	20.0	12.0	40.0	0.0			29.4	8.0
		1″ to 3″ Stone										
Filtered Effluent	4½′	64.3	67.5	46.7	38.5	36.0	46.7	0.0			52.9	81.4
		35	**27**	**8**	**8.0**	**6.4**	**1.6**	**16**	**0.33**	**2.2**	**25**	**650 000**
		39.7	43.8	20.0	20.0	26.4	-23.1	11.1			40.5	74.0
Settled Effluent	4½′	73.5	74.7	66.7	40.0	35.0	56.7	0.0			56.6	
		26	**21**	**5**	**7.8**	**6.5**	**1.3**	**16**	**0.29**	**1.8**	**23**	
		55.2	56.3	50.0	22.0	25.3	0.0	11.1			45.2	
		25.7	22.2	37.5	2.5	-1.6	18.8	0.0			8.0	
Filtered Effluent	7½′	72.4	75.9	53.3	40.0	36.0	53.3	18.8			67.9	86.6
		27	**20**	**7**	**7.8**	**6.4**	**1.4**	**13**	**0.80**	**4.0**	**17**	**470 000**
		53.4	58.3	30.0	22.0	26.4	-7.7	27.8			59.5	81.2
Settled Effluent	7½′	74.5	77.1	60.0	41.5	36.0	60.0	12.5			66.0	
		25	**19**	**6**	**7.6**	**6.4**	**1.2**	**14**	**1.03**	**3.6**	**18**	
		56.9	60.4	40.0	24.0	26.4	7.7	22.2			57.1	
		7.4	5.0	14.3	2.6	0.0	14.3	-7.7			-5.9	

TABLE E.

WEIGHTED AVERAGES OF ANALYTICAL RESULTS.

	Depth of Bed	Parts per Million										
		Susp'd Solids			Nitrogen as						Oxygen Consumed	Bacteria per C. C.
					Organic			Free Ammonia	Nitrites	Nitrates		
		Total	Loss on Ignition	Fixed	Total	Solution	Susp.					
Raw Sewage		113	92	21	12	8.5	3.5	16	0.07	0.6	52	5 500 000
Settled Sewage		49.6 57	45.7 50	66.7 7	0.0 12	−5.9 9	14.3 3	12.5 18	0.03	0.6	28.9 37	45.5 3 000 000
		1″ to 3″ Stone										
Filtered Effluent	6′	66.4 38 33.3	69.6 28 44.0	52.4 10 −42.9	39.2 7.3 39.2	37.6 5.3 41.1	42.9 2.0 33.3	18.8 13 27.8	0.85	5.3	57.7 22 40.5	92.2 430 000 85.7
Settled Effluent	6′	77.9 25 56.1 34.2	76.1 22 56.0 21.4	85.7 3 57.1 70.0	43.3 6.8 43.3 6.8	41.2 5.0 44.4 5.7	48.6 1.8 40.0 10.0	18.8 13 27.8	0.63	4.8	65.4 18 51.4 18.2	
Filtered Effluent	9′	69.9 34 40.4	71.7 26 48.0	61.9 8 14.3	50.0 6.0 50.0	47.1 4.5 50.0	57.1 1.5 50.0	37.5 10 44.4	1.10	11	75.0 13 64.9	94.0 330 000 89.0
Settled Effluent	9′	81.4 21 63.2 38.2	81.5 17 66.0 34.6	81.0 4 42.9 50.0	56.7 5.2 56.7 1.3	47.1 4.5 50.0 0.0	80.0 0.7 76.7 53.3	37.5 10 44.4	1.00	12	71.1 15 59.5 −15.4	

COMPARISON OF RESULTS OBTAINED FROM DIFFERENT DEPTHS OF BED AND SIZES OF STONE.

Figure No. 1, showing the comparison of results from filters of varying depths, brings out very strikingly the fact that the amount of purification per foot of bed decreases as the bed increases in depth, with the exception of nitrification, which seems to vary almost directly as the depth of the bed. This information for each size of stone is particularly valuable in determining the depth of bed to be used to secure a certain required degree of purification.

In the case of Baltimore, where it was required that the highest practicable degree of purification be obtained, the desirable depth, as indicated by these diagrams, has been decided to be 9 feet. A study of the diagrams will show that there is a considerable increase of purification between the depths of 6 feet and 9 feet, while the increased purification between depths of filters of 9 feet and 12 feet is relatively small. The beds at the Sewage Disposal Plant at Back River, as designed and constructed have an average depth of 8½ feet. It was considered that a depth of 8½ feet, with the form of underdrain used at Back River, namely, slotted, flat tile slabs laid over grooves in the concrete floor, would give a purification equivalent to a bed 9 feet in depth where the underdrains consist of half-round tile covered with coarse stone to a depth of about 6 inches, as was the case at the Walbrook Testing Station.

Figure No. 2 gives a comparison of the results obtained with the four different sizes of stone in the same depths of bed. This figure shows how much better is the purification secured with the smaller sizes of stone than with the larger sizes. There is not a great deal of difference between the purification obtained from the ½-inch to 1½-inch stone and that obtained from the 1-inch to 2-inch stone. There is a considerable decrease in the purification obtained from

the 2-inch to 4-inch stone as compared with that obtained from the 1-inch to 2-inch stone, while there is a great decrease in the purification obtained from the 4-inch to 6-inch stone, as compared with the 2-inch to 4-inch stone.

There is no question but that the degree of purification increases very considerably as the size of stone decreases, and the only reason for limiting the smallness of the stone arises from the fact that the small stone clogs very much more readily than the coarse stone. In operating the filters at the Testing Station, the fine stone beds were placed in operation on August 1, and were operated continuously until September 20, after which time they were rested from September 20 to October 22. They were then operated from October 23 to October 29; rested from October 30 to November 6; operated from November 7 to November 15; rested from November 16 to November 20; operated from November 21 to November 28, and rested from November 29 to December 2. After December 2 these filters were operated continuously until the first part of May, excepting for an occasional shutdown, lasting from several hours to a couple of days, when the filter would be turned off in order to fix the mechanism for operating the sprinkling arm. Under these conditions of operation the fine stone beds of ½-inch to 1½-inch stone showed evidences of surface clogging by the sewage standing in pools on November 11. On November 21 these beds were raked with a hand rake to try to break up the surface clogging. This raking was not very effectual, and on December 9 the fine stone beds were again beginning to clog badly. It was also noticed at this time that the surface of the beds composed of 1-inch to 2-inch stone was beginning to clog, and, on December 16, the surfaces of the beds composed of both the ½-inch to 1½-inch stone and the 1-inch to 2-inch stone were picked to a depth of 8 to 10 inches—this work being done with an ordinary pick. This stopped the clogging for a time, but by the middle of January the surfaces of all

these beds were again beginning to show evidences of bad surface clogging and, on January 15, the upper part of the beds was again picked loose. About one month later the surfaces of these beds were again badly clogged and, on February 18, they were again picked. About one month later these filter surfaces were again badly clogged and orders had been given to pick the surfaces of the filters at the first opportunity. At this time, however, about the middle of March, there occurred a very warm spell of weather, the thermometer going up to above 80° F. There had been a delay in picking the surface of the beds, and after two or three days of this warm weather it was found that the beds had cleared themselves—all pooling showing on the surface of any of the six beds of the finer material having disappeared. From this time, during the rest of the Spring and Summer, there was no difficulty experienced with the clogging of the filters.

This experience indicates that there is very little danger of clogging of the surfaces with ordinary rates of application, excepting during the cold, winter months, and would also indicate that a smaller stone could be used in warmer climates than it is possible to use in the colder climates of the North.

No difficulty was experienced at any time with clogging of the large 4-inch to 6-inch stone. There was a little pooling of sewage on the surface of the 2-inch to 4-inch stone, but this was never serious enough to require the surface being picked over as was the case with the finer beds. The rates of filtration, and the population per acre, contributing sewage to these beds was very high, as shown by Table F. It will be noticed in this table that, during each month, there was a wide variation in the rates of filtration. This wide variation was caused by the fact that it was necessary to treat on the beds all the sewage that was received at the Station, and the variation in the rates was due to the varia-

TABLE F.

LOADING OF FILTER BEDS.

Period Covered, 1907-1908.	Rate of Filtration in Million Gallons per Acre per Day.			Population per Acre Foot.		
	Maximum Daily.	Minimum Daily.	Average.	Six-Foot Beds.	Nine-Foot Beds.	Twelve-Foot Beds.
Beds Composed of ½-inch to 1½-inch and 1-inch to 2-inch Stone.						
August 1 to September 1	3.1	1.3	1.9	7,372	4,915	3,686
September 4 to September 17	3.8	2.6	3.2	12,685	8,457	6,343
October 22 to October 27	5.1	2.8	3.6	15,090	10,060	7,545
November 21 to November 26	5.3	2.2	3.4	8,242	5,362	4,022
December 3 to December 29	5.5	2.3	2.8	8,242	5,495	4,121
January 7 to January 30	5.2	2.8	3.7	8,242	5,495	4,121
February 2 to February 25	4.6	2.5	3.6	8,242	5,495	4,121
March 1 to March 24	5.0	3.0	3.3	8,242	5,495	4,121
March 27 to April 29	5.5	3.0	4.4	8,242	5,495	4,121
April 30 to May 7	5.5	5.2	5.3	8,242	5,495	4,121
Beds Composed of 2-inch to 4-inch and 4-inch to 6-inch Stone.						
September 20 to October 3	4.0	2.9	3.6	12,685	8,457	6,343
October 6 to November 4	5.1	1.4	3.2	15,090	10,060	7,545
November 15 to November 29	5.3	2.0	4.1	16,086	10,724	8,043
December 11 to December 16	5.5	2.5	4.0	8,242	5,495	4,121
January 6 to January 21	5.2	3.1	3.6	8,242	5,495	4,121
February 3 to February 26	4.8	2.5	3.7	8,242	5,495	4,121
February 29 to March 23	5.0	3.0	3.2	8,242	5,495	4,121
March 28 to April 10	4.1	3.0	3.6	8,242	5,495	4,121
July 13 to August 8	5.6	4.4	5.1	8,242	5,495	4,121
September 7 to October 3	5.6	4.8	5.2	8,242	5,495	4,121

tion in the daily quantities of sewage reaching the Plant, which was at times considerably increased by rainy weather. The variation in the population per acre during the first months of operation is due to the fact that all the houses were not connected to the sewers until sometime in November, and also to the fact that, during the earlier months of operation, the entire amount of sewage was being treated on either Filter No. 1 or Filter No. 2 alone, while after November both Filters No. 1 and No. 2 were in practically continuous operation. From a study of the actual rates of filtration, and the population per acre tributary to the Testing Station, it would seem that the recommendation of the Advisory Engineers, i. e., that the rate of filtration be limited to two and one-half million gallons per acre per day, representing a population per acre of approximately 20,000, is very conservative. In all probability, it will be possible to secure satisfactory results at the Sewage Disposal Plant at Back River with a higher rate of application of sewage to the filters than that recommended by the Advisory Engineers.

The average daily volume of sewage treated at the Testing Station during the first ten months of 1908 was 82,300 gallons, equal to 3,300,000 gallons per acre per day, representing a population of 50,000 per acre; but when it is considered that the sewage reaching the Walbrook Testing Station carried absolutely no manufacturing refuse, and that a considerable percentage of the people living in the houses connected to the Walbrook sewers were away from their homes during the day—at their places of business—it is evident that the quantity of applied organic matter per acre at the Testing Station was not so much greater than that which is to be expected at the main Disposal Plant, as would be indicated by the great difference between the popluation per acre tributary to the Testing Station and that estimated for the main Disposal Plant at Back River.

As a result of the study of Figure No. 2, and the experience with the clogging of the finer stone beds at the Walbrook Testing Station, it was decided to adopt, for use at the main Disposal Plant, a size of stone that would pass through a 2½-inch circular opening and be caught upon a screen with a 1-inch circular opening. It was considered that this stone would strike the most satisfactory balance in giving the required degree of purification without undue clogging. Should clogging take place, the experience at the Walbrook Testing Station with picking the surfaces of the filters would indicate that the filter surfaces could be harrowed, giving the same results in preventing clogging at the main Disposal Plant as were secured at the Testing Station by hand picking.

PUTRESCIBILITY TESTS.

When coarse-grained filters are used in the purification of sewage, there are much larger amounts of organic matter left in the filter effluents than is the case with the older methods of purification, and the analytical methods referred to above fail to indicate the character and condition of the organic matter which is left in such effluents. In the older methods of sewage purification, such as sand filtration, there is an almost complete removal of suspended organic matter and a complete oxidation of the nitrogen in solution, and the analytical methods employed were for the purpose of testing the efficiencies of the filters in accomplishing these ends.

With the development of coarse-grained filters, it became evident that their functions are quite different from those of sand filters, and it has become necessary to examine the resulting effluents from a new point of view. The removal of organic matter is far from complete, and the question of the stability, or the nonputrefactive condition, of this organic matter becomes one of prime importance. This has been generally recognized, and a number of tests for the stability of the effluents have been devised for determining this point.

At the time the Testing Station work was started, a study was made of the literature on the subject of the various methods of determining the stability of coarse filter effluents, and from these the methylene blue test was selected, as it seemed to be the simplest and most practical of the various forms of putrescibility tests that were in use. This method of determining the stability of a coarse-stone filter effluent was studied in comparison with several other methods and the conclusions were that it was the most scientific and practical to use.

In studying the methylene blue tests three samples of settled effluents from the various filter beds were taken. One of these samples was used for immediate determination of the available oxygen in the effluent in the form of dissolved oxygen, nitrates and nitrites. The two remaining samples were incubated at 37° C. To one of these samples was added 1 c. c. of a one-tenth of one per cent. (0.001) solution of methylene blue. Upon the disappearance of the blue color, or after holding the samples for a number of days without the color disappearing, determinations of dissolved oxygen, nitrates and nitrites were made of the third sample, which had been incubated under identically the same conditions as the sample treated with methylene blue.

From an examination of the tables in Appendix 2, showing the studies of available oxygen in the methylene blue tests, it will be seen that the available oxygen in the three forms mentioned had practically disappeared in substantially all cases where the blue color disappeared, and, where the blue color was retained, it was found in by far the greater number of cases that there was still oxygen available in one of the three above-mentioned forms. In a few cases, where the blue color was retained, but where there was no available oxygen in any of the three forms present, or where there was available oxygen present when the color had disappeared, an explanation can be found in the fact that the samples were not absolutely

identical in character. The conclusions which were reached were that, as long as there is any oxygen available in either of the three forms mentioned, the effluent would not putrefy, and the methylene blue color would be retained. Therefore, this method was adopted as one of the routine methods of analysis in carrying out the work of the Testing Plant, and in Appendix 2 are given tables showing the relative stability numbers as determined by the methylene blue tests from all of the filters. These relative stability numbers were worked out in the manner described in the paper by Professor Earle B. Phelps, as published in Water Supply Paper 229 of the United States Geological Survey. The average results of the stability numbers, as determined from month to month in the different beds, are shown in Table G. These results are also shown in Figures 1 and 2, in connection with the study of the comparative results secured from the different depths of bed and with the different sizes of stone.

In Appendix 2 there is also a table showing the comparison of 37° C. incubation tests of filtered and settled effluents, giving the time the methylene blue color was retained. This table indicates very strikingly the value of settling the coarse filter effluents, especially if the effluents are not of the highest character.

DISINFECTION OF SPRINKLING FILTER EFFLUENTS.

As has previously been stated, experiments were carried out at the Testing Station to determine the feasibility of disinfecting sprinkling filter effluents with calcium hypochlorite, with a view to securing an effluent that would compare favorably, from a bacteriological standpoint, with a sand filter effluent, in order to avoid the expense of constructing the sand filters recommended in the report of the Advisory Engineers. It was estimated by the Advisory Engineers that these sand

TABLE G.

SUMMARY OF RELATIVE STABILITY NUMBERS.

Incubation at 20° C.

Period Covered. 1907.	6 Foot Beds — Size of Stone				9 Foot Beds — Size of Stone				12 Foot Beds — Size of Stone			
	½ to 1½ Inches	1 to 2 Inches	2 to 4 Inches	4 to 6 Inches	½ to 1½ Inches	1 to 2 Inches	2 to 4 Inches	4 to 6 Inches	½ to 1½ Inches	1 to 2 Inches	2 to 4 Inches	4 to 6 Inches
Oct. 9 to Oct. 31	35	28	29	19	53	35	37	25	64	49	60	23
Nov. 1 to Nov. 30	66	48	51	28	77	84	60	48	85	72	81	51
Dec. 3 to Dec. 30	92	86	35	21	95	87	67	30	95	87	70	50
1908.												
Jan. 2 to Jan 31	74	57	64	24	84	81	86	40	95	91	90	49
Feb. 1 to Feb. 29	91	82	58	36	91	93	84	42	95	95	89	55
Mar. 2 to Mar. 31	85	82	48	25	95	95	90	32	95	95	91	47
April 1 to May 8	81	86	36	20	93	95	90	27	95	95	91	35

12 Foot Bed, ½ Inch to 1½ Inch Stone, treated with bleach after January 1.

TABLE G.—*Continued.*

SUMMARY OF RELATIVE STABILITY NUMBERS.

Incubation at 20° C.

Period Covered. 1908.	4½ Foot Beds				7½ Foot Beds				10½ Foot Beds			
	1″ to 2″ Stone		1″ to 3″ Stone		1″ to 2″ Stone		1″ to 3″ Stone		½″ to 1½″ Stone		1″ to 2″ Stone	
	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent
June 5 to June 30	73	82	42	77	95	95	57	83	95	95	95	95
July 1 to Aug. 14	60	70	31	70	95	95	80	81	95	95	95	95
Correction for residual chlorine applied after August 14.												
Aug. 17 to Sept. 4	65	87	54	84	95	95	85	95	95	95	95	95
Oct. 6 to Nov. 12	24	31	25	79	61	60	34	66	95	92	95	95

4½ Foot and 7½ Foot Beds, 1 Inch to 3 Inch Stone and 10½ Foot Bed, ½ Inch to 1½ Inch Stone, treated with bleach.

TABLE G.—*Concluded.*

SUMMARY OF RELATIVE STABILITY NUMBERS.

Incubation at 20° C.

Period Covered. 1908.	6 Foot Beds				9 Foot Beds				12 Foot Beds			
	1″ to 3″ Stone		2″ to 4″ Stone		1″ to 3″ Stone		2″ to 4″ Stone		2″ to 4″ Stone		4″ to 6″ Stone	
	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent	Filtered Effluent	Settled Effluent
July 14 to Aug. 6.....	73	88	56	62	84	95	78	86	95	95	68	77
Correction for residual chlorine applied after August 6.												
Sept. 8 to Oct. 2.....	71	93	49	65	95	95	92	93	95	95	78	93

6 Foot and 9 Foot Beds, 1 Inch to 3 Inch Stone, treated with bleach.

filters would cost over $1,000,000 and would cost $60,000 a year to maintain and operate.

Professor Earle B. Phelps, who had already carried on a number of experiments in this line of work, was called upon to assist in these investigations. Arrangements were made to disinfect the effluent from the sprinkling filter 12 feet in depth with filtering material of ½-inch to 1½-inch stone. The disinfecting solution was added to the sprinkling filter effluent as it left the filter, and this effluent, after flowing through approximately 15 feet of 4-inch pipe, was then discharged into a settling basin giving a detention of approximately an hour and a half. This time, however, varied with the quantity of sewage which was being treated on the filters. Samples were taken of this effluent before the hypochlorite was added and after having passed through the settling basin.

The bacteriological methods used in studying these effluents have already been described. In general, these methods were those recommended by the Committee on Standard Methods of Analysis of the American Public Health Association. In the presumptive test for B. Coli the lactose-bile method described by Jackson was used. For the purpose of comparison, the Standard lactose-broth medium was also used for this test. In connection with the treatment of the effluent of this bed, the results of the individual analyses are shown in Appendix 3 and a resume of the results are shown in Tables H and K.

The results secured from the treatment of the effluent from this bed were so satisfactory that it was decided that further experiments should be made upon the effluents which were not so completely purified as was the case with the effluent from this deep bed of fine stone. After the changes already described were made in the filters, the effluents from the beds

TABLE H.

DISINFECTION OF SPRINKLING FILTER EFFLUENTS.

Twelve-Foot Bed, ½-inch to 1½-inch Stone.

Period Covered. 1907-1908.	Parts per Million.		Bacteria per C. C.						B. Coli per C. C.				Tempature of Effluent C.°	Relative Stability
			Gelatine.		Agar.		Acid Formers.		Bile.		Broth.			
	Available Chlorine.	Residual Chlorine.	Initial.	Final.	Initial.	Final.	Initial.	Final.	Initial.	Final.	Initial.	Final.		
Dec. 26 to Dec. 30.....	4.4	++	170,000	13,000	83,000	650	5,500	38	2,600	65	.....	.....	10.5	95
Jan. 2 to Jan. 8.....	2.0	++	120,000	59,000	26,000	275	6,600	85	2,900	170	.....	.....	8.0	95
Jan. 9 to Jan. 15.....	1.8	++	120,000	5,500	4,400	325	3,000	80	1.500	375	.....	.....	8.4	95
Jan. 16 to Jan. 22.....	2.2	+++	140,000	2,700	1,500	95	1,000	5	2,300	60	.....	.....	9.0	95
Jan. 23 to Jan. 29.....	2.1	+	110,000	2,800	2,400	95	1,100	8	1,600	170	.....	.....	5.5	95
Jan. 30 to Feb. 5.....	2.5	0.52	92,000	5,200	1,100	75	450	2	550	190	.....	.....	6.0	95
Feb. 6 to Feb. 12.....	2.1	0.83	66,000	9,200	1,000	170	350	9	425	325	.....	.....	6.6	95
Feb. 13 to Feb. 19.....	1.0	0.14	96,000	22,500	5,200	750	3,800	300	550	225	.....	.....	8.0	95
Feb. 20 to Feb. 26.....	1.7	0.51	72,000	5,400	3,300	100	1,400	23	1,400	45	3,300	55	7.1	95
Feb. 27 to March 4.....	1.7	0.41	100,000	1,900	1,400	65	700	4	2,300	230	400	200	7.4	95
March 5 to March 11..	1.9	0.51	87,000	1,800	1,400	90	900	3	1,500	150	3,500	210	7.9	95
March 12 to March 18..	1.8	0.38	83,000	1,000	1,000	60	475	6	2,100	180	1,900	270	9.1	95
March 19 to March 25..	2.0	0.36	150,000	1,600	1,100	85	750	10	600	140	700	400	9.6	95
March 26 to April 1....	1.9	0.26	140,000	2,100	5,200	150	2,800	12	2,200	200	3,000	300	11.4	95
April 2 to April 8....	2.3	0.73	160,000	1,100	1,100	60	425	1	1,400	130	3,200	130	11.0	95
April 9 to April 15....	2.4	0.80	150,000	1,400	4,300	75	3,100	3	1,500	34	3,600	160	12.3	95
April 16 to April 22....	2.4	0.40	130,000	2,700	1,500	400	9,800	150	5,400	43	3,300	425	13.0	95
April 23 to April 29....	3.0	0.64	130,000	1,600	2,000	110	2,200	2	1,700	150	3,600	170	14.5	95
April 30 to May 7.....	2.5	1.15	150,000	1,800	3,100	90	1,800	6	1,300	120	2,100	40	13.5	95

of 1-inch to 3-inch stone of 4½, 6, 7½ and 9 feet depths, and from the bed of ½-inch to 1½-inch stone of 10½ feet depth, were treated with the disinfectant. The character of these effluents is shown in Appendix 1, and the results obtained are shown in the tables of Appendix 3. A resume of these results is shown in Tables I, J and L, together with the relative stability numbers of the disinfected effluents. A study of these tables clearly shows that the poorer effluents from the shallower beds require much larger quantities of hypochlorite in order to secure a removal of bacteria approximating the results secured by using a comparatively small amount of hypochlorite with the more highly purified effluents from beds of greater depth.

As a result of these disinfection experiments it was decided that an effluent could be obtained from the sprinkling filters at the main Disposal Plant which, by subsequent treatment with calcium hypochlorite, would compare favorably with the effluents which could be secured by treatment in supplementary sand filters. Although individual results were secured which showed a high percentage removal of bacteria with quantities of available chlorine varying from one to two parts per million, yet these high percentage removals were not constant and the conclusions reached were that it would be necessary to use at least three parts of available chlorine per million gallons in treating the sprinkling filter effluents from the main Disposal Plant, should such treatment be deemed necessary.

The plant required for this treatment would cost but a few thousand dollars, compared with the million-dollar cost of the supplementary sand filters, while the annual cost of treating the sprinkling filter effluent with three parts per million of available chlorine would not be much more than half the cost of maintaining and operating the sand filters.

TABLE I.

DISINFECTION OF SPRINKLING FILTER EFFLUENTS.

Six-Foot Bed, 1-inch to 3-inch Stone.

Period Covered. 1908.	Parts per Million.		Bacteria per C. C.						B. Coli per C. C.		Tempature of Effluent C.°.	Relative Stability Number.
			Gelatine.		Agar.		Acid Formers.		Bile.			
	Available Chlorine.	Residual Chlorine.	Initial.	Final.	Initial.	Final.	Initial.	Final.	Initial.	Final.		
July 13 to July 18.....	1.0	0.01	320,000	120,000	140,000	9,100	83,000	3,200	5,500	300	21.5	81
July 20 to July 25.....	1.4	0.00	590,000	75,000	47,000	1,700	32,500	700	3,300	325	22.4	95
July 27 to August 1....	1.1	0.05	500,000	47,000	81,000	11,000	10,000	1,600	2,800	650	22.3	88
August 3 to August 8..	1.3	0.05	470,000	83,000	21,000	3,800	13,000	700	4,600	250	23.1	95
Sept. 8 to Sept. 14.....	2.3	0.20	400,000	40,500	66,000	4,000	33,000	1,100	7,000	375	20.3	95
Sept. 15 to Sept. 21....	2.6	0.20	460,000	96,000	100,000	18,500	53,000	8,900	30,000	2,800	18.3	87
Sept. 22 to Sept. 28....	4.0	1.50	650,000	14,500	46,000	700	25,000	30	7,800	33	20.2	95
Sept. 29 to October 3..	2.6	0.90	390,000	36,000	73,000	7,000	26,000	325	2,800	55	17.5	95

TABLE I.—*Concluded.*

DISINFECTION OF SPRINKLING FILTER EFFLUENTS.

Nine-Foot Bed, 1-inch to 3-inch Stone.

Period Covered. 1908.	Parts per Million.		Bacteria per C. C.						B. Coli per C. C.		Tempature of Effluent C.°.	Relative Stability Number.
			Gelatine.		Agar.		Acid Formers.		Bile.			
	Available Chlorine.	Residual Chlorine.	Initial.	Final.	Initial.	Final.	Initial.	Final.	Initial.	Final.		
July 13 to July 18.....	1.2	0.07	230,000	84,000	62,000	10,000	21,000	6,200	5,500	80	21.3	95
July 20 to July 25.....	1.7	0.02	750,000	21,500	21,000	780	12,000	20	3,300	275	22.5	95
July 27 to August 1....	1.4	0.13	420,000	48,500	56,000	6,800	3,100	38	650	65	22.3	95
August 3 to August 8..	1.6	0.32	320,000	52,000	18,000	1,600	2,700	190	650	250	22.7	95
Sept. 8 to Sept. 14.....	1.4	0.00	330,000	31,000	42,500	3,800	18,500	1,000	7,000	3,400	19.9	95
Sept. 15 to Sept. 21....	1.5	0.01	230,000	37,500	55,000	1,500	28,500	500	3,000	300	18.3	95
Sept. 22 to Sept. 28....	2.4	0.36	300,000	22,000	17,000	2,100	8,600	220	5,500	300	20.3	95
Sept. 29 to October 3..	1.8	0.32	240,000	33,000	62,000	4,700	16,000	450	26,000	320	17.2	95

TABLE J.

DISINFECTION OF SPRINKLING FILTER EFFLUENTS.

Ten and One-Half Foot Bed, ½-inch to 1½-inch Stone.

Period Covered. 1908.	Parts per Million.		Bacteria per C. C.						B. Coli per C. C.		Tempature of Effluent C.°	Relative Stability Number.
			Gelatine.		Agar.		Acid Formers.		Bile.			
	Available Chlorine.	Residual Chlorine.	Initial.	Final.	Initial.	Final.	Initial.	Final.	Initial.	Final.		
June 5 to June 11.....	2.2	0.34	120,000	34,500	25,500	5,000	10,500	1,100	650	80	18.8	95
June 12 to June 18.....	2.3	0.75	94,000	1,000	2,000	350	430	18	450	250	18.7	95
June 19 to June 25.....	1.9	0.19	160,000	3,100	3,100	800	500	0	800	275	21.3	95
June 26 to July 2.....	1.9	0.17	190,000	3,100	4,700	2,000	1,300	100	3,000	80	21.0	95
July 3 to July 11.....	2.0	0.11	240,000	6,500	9,100	1,100	4,700	170	2,600	550	21.1	95
Aug. 10 to Aug 16.....	2.1	0.68	220,000	65 000	12,500	2,400	6,600	10	800	65	23.5	95
Aug. 17 to Aug. 23.....	2.2	0.40	170,000	10,000	21,000	800	13,000	30	325	55	23.0	95
Aug. 24 to Aug. 30.....	1.9	0.29	360,000	2,700	26,000	1,800	5,500	9	2,600	65	20.5	95
Aug. 31 to Sept. 4.....	2.0	0.14	230,000	2,800	40,000	2,200	8 400	550	700	10	20.7	95
Oct. 5 to Oct. 11.....	2.5	0.39	300,000	20,000	99,000	11,000	39,500	400	7,000	40	17.5	95
Oct. 12 to Oct. 18.....	2.7	0.22	400,000	40,000	100,000	8,100	45,000	325	28,000	35	17.1	95
Oct. 19 to Oct. 25.....	2.7	0.42	250,000	40,500	37,500	3,800	21,000	210	4,400	250	17.2	95
Oct. 26 to Nov. 1.....	2.2	0.14	330,000	31,500	78,000	4,500	21,500	1,600	8,200	2,200	16.3	95
Nov. 2 to Nov. 8.....	2.3	0.14	240,000	58,000	200,000	15,000	41,500	1,200	4,000	350	14.5	95
Nov. 9 to Nov. 13.....	3.3	0.38	430,000	25,500	160,000	11,000	25,000	25	5,500	550	13.8	95

TABLE J.—*Continued.*

DISINFECTION OF SPRINKLING FILTER EFFLUENTS.

Seven and One-Half Foot Bed, 1-inch to 3-inch Stone.

Period Covered. 1908	Parts per Million.		Bacteria per C. C.						B. Coli per C. C.		Tempature of Effluent C.°	Relative Stability Number.
			Gelatine.		Agar.		Acid Formers.		Bile.			
	Available Chlorine.	Residual Chlorine.	Initial.	Final.	Initial.	Final.	Initial.	Final.	Initial.	Final.		
June 5 to June 11.....	1.5	0.01	650,000	5,500	92,000	14,500	62,000	9,100	28,000	450	18.8	85
June 12 to June 18.....	1.7	0.03	320,000	2,600	94,000	550	36,000	0	22,500	250	18.8	95
June 19 to June 25.....	1.4	0.00	300,000	23,500	32,500	1,800	16,000	65	3,300	80	21.5	75
June 26 to July 2.....	1.3	0.00	450,000	43,500	89,000	3,000	28,500	750	5,500	80	20.9	95
July 3 to July 11.....	1.4	0.01	490,000	44,000	59,000	1,600	16,500	500	3,700	1,700	21.1	95
Aug. 10 to Aug 16.....	1.7	0.28	450,000	57,000	14,500	4,400	8,900	30	4,600	240	23.3	95
Aug. 17 to Aug. 23.....	1.8	0.06	330,000	15,000	28,000	1,100	12,000	160	5,500	2,800	23.2	95
Aug. 24 to Aug. 30.....	1.9	0.15	360,000	5,700	46,000	2,100	15,500	375	4,600	2,800	20.4	95
Aug. 31 to Sept. 4.....	1.7	0.01	250,000	11,000	90,000	4,700	19,500	1,300	4,000	100	20.6	95
Oct. 5 to Oct. 11.....	1.4	0.00	800,000	180,000	200,000	18,500	110,000	5,500	7,000	700	17.5	95
Oct. 12 to Oct. 18.....	1.5	0.00	1,300,000	280,000	290,000	54,000	120,000	24,000	30,500	3,300	17.3	64
Oct. 19 to Oct. 25.....	1.5	0.00	1,200,000	420,000	270,000	49,000	130,000	31,000	42,000	4,400	17.4	52
Oct. 26 to Nov. 1.....	1.5	0.00	900,000	280,000	370,000	73,000	140,000	32,000	100,000	10,000	16.7	67
Nov. 2 to Nov. 8.....	2.0	0.00	470,000	170,000	310,000	250,000	84,000	57,000	7,000	4,000	14.5	44
Nov. 9 to Nov. 13.....	2.9	0.38	700,000	60,000	230,000	8,400	96,000	3,200	10,000	5,000	13.8	79

TABLE J.—*Concluded.*

DISINFECTION OF SPRINKLING FILTER EFFLUENTS.

Four and One-Half Foot Bed, 1-inch to 3-inch Stone.

Period Covered. 1908.	Parts per Million.		Bacteria per C. C.						B. Coli per C. C.		Tempature of Effluent C.°.	Relative Stability Number.
			Gelatine.		Agar.		Acid Formers.		Bile.			
	Available Chlorine.	Residual Chlorine.	Initial.	Final.	Initial.	Final.	Initial.	Final.	Initial.	Final.		
June 5 to June 11.....	1.7	0.00	750,000	81,000	120,000	47,500	88,000	20,500	46,000	225	18.7	83
June 12 to June 18.....	1.7	0.03	260,000	24,000	60,000	750	29,000	90	22,500	250	18.8	82
June 19 to June 25.....	1.5	0.00	440,000	20,500	39,000	1,300	24,000	250	28,000	300	21.6	67
June 26 to July 2.....	1.4	0.00	460,000	77,000	81,000	4,000	44,000	2,500	3,300	325	20.9	68
July 3 to July 11.....	1.4	0.00	790,000	100,000	89,000	5,700	33,500	1,900	37,000	2,100	21.1	54
Aug. 10 to Aug 16.....	2.0	0.26	500,000	64,000	27,300	6,000	17,000	40	4,600	250	23.3	95
Aug. 17 to Aug. 23.....	3.4	0.69	600,000	5,400	93,000	2,200	46,500	10	2,800	300	22.9	95
Aug. 24 to Aug. 30.....	3.4	0.91	500,000	8,600	88,000	1,500	44,500	75	8,000	2,000	20.4	82
Aug. 31 to Sept. 4.....	3 5	0.52	370,000	7,400	210,000	1,100	77,000	300	4,000	375	20.7	74
Oct. 5 to Oct. 11.....	3.2	0.12	1,100,000	170,000	290,000	7,300	110,000	2,000	10,000	375	17.8	82
Oct. 12 to Oct. 18.....	3.5	0.16	1,300,000	160,000	280,000	9,000	140,000	1,000	30,500	550	17.3	79
Oct. 19 to Oct. 25.....	3.6	0.24	1,500,000	94,000	360,000	25,000	170,000	3,400	61,000	275	17.4	78
Oct. 26 to Nov. 1.....	2.8	0.12	1,300,000	73,000	500,000	19,000	190,000	6,500	62,000	650	16.2	84
Nov. 2 to Nov. 8.....	3.0	0.10	700,000	120,000	330,000	110,000	120,000	9,600	4,000	350	14.5	79
Nov. 9 to Nov. 13.....	4.4	1.06	850,000	38,000	330,000	850	120,000	80	5,500	55	13.8	68

TABLE K.

DISINFECTION OF SPRINKLING FILTER EFFLUENTS.

Percentage Summary. Twelve-Foot Bed, ½-inch to 1½-inch Stone.

Period Covered. 1907-1908.	Parts per Million.		Percentage Bacterial Removal.					Relative Stability Number.
	Available Chlorine.	Residual Chlorine.	Gelatine.	Agar.	Acid Formers.	B. Coli.		
						Bile.	Broth.	
Dec. 26 to Dec. 30.....	4.4	+	92.4	99.22	99.31	97.50	.....	95
Jan. 2 to Jan. 8.....	2.0	++	50.9	98.94	98.71	94.1	.....	95
Jan. 9 to Jan. 15.....	1.8	++	95.42	92.7	97.34	75.0	.....	95
Jan. 16 to Jan. 22.....	2.2	++	98.07	93.7	99.50	97.39	.....	95
Jan. 23 to Jan. 29.....	2.1	+	97.46	96.04	99.27	89.4	.....	95
Jan. 30 to Feb. 5.....	2.5	0.52	94.3	93.2	99.56	65.4	.....	95
Feb. 6 to Feb. 12.....	2.1	0.83	86.1	83.0	97.43	23.5	.....	95
Feb. 13 to Feb. 19.....	1.0	0.14	76.6	85.6	92.10	50.0	.....	95
Feb. 20 to Feb. 26.....	1.7	0.51	92.5	96.97	98.36	96.79	98.33	95
Feb. 27 to March 4.....	1.7	0.41	98.10	95.36	99.43	90.0	50.0	95
March 5 to March 11..	1.9	0.51	97.93	93.6	99.67	90.0	94.0	95
March 12 to March 18..	1.8	0.38	98.80	94.0	98.75	91.0	85.5	95
March 19 to March 25..	2.0	0.36	98.93	92.3	98.67	70.6	42.8	95
March 26 to April 1....	1.9	0.26	98.50	97.2	99.57	90.1	90.0	95
April 2 to April 8....	2.3	0.73	99.31	94.5	99.75	90.7	95.93	95
April 9 to April 15....	2.4	0.89	99.07	98.26	99.90	97.74	95.55	95
April 16 to April 22....	2.4	0.49	97.92	73.4	98.47	99.20	87.1	95
April 23 to April 29....	3.0	0.64	98.77	96.21	99.91	91.2	95.28	95
April 30 to May 7.....	2.5	1.15	98.80	97.10	99.67	90.8	98.10	95

TABLE L.

DISINFECTION OF SPRINKLING FILTER EFFLUENTS.

Percentage Summary.

Period Covered. 1908.	Available Chlorine Parts per Million: 1"-3" Stone 4½' Bed	1"-3" Stone 6' Bed	1"-3" Stone 7½' Bed	1"-3" Stone 9' Bed	½"-1½" Stone 10½' Bed	Percentage Bacterial Removal. Gelatine. 4½' Bed, 1"-3" Stone	6' Bed, 1"-3" Stone	7½' Bed, 1"-3" Stone	9' Bed, 1"-3" Stone	10½' Bed, ½"-1½" Stone	Agar. 4½' Bed, 1"-3" Stone	6' Bed, 1"-3" Stone	7½' Bed, 1"-3" Stone	9' Bed, 1"-3" Stone	10½' Bed, ½"-1½" Stone	Acid Formers. 4½' Bed, 1"-3" Stone	6' Bed, 1"-3" Stone	7½' Bed, 1"-3" Stone	9' Bed, 1"-3" Stone	10½' Bed, ½"-1½" Stone	B. Coli-Bile. 4½' Bed, 1"-3" Stone	6' Bed, 1"-3" Stone	7½' Bed, 1"-3" Stone	9' Bed, 1"-3" Stone	10½' Bed, ½"-1½" Stone
June 5 to June 11	1.7		1.5		2.2	89.2		99.15		71.2	60.4		84.2		80.4	76.7		85.3		89.5	99.51		98.39		87.7
June 12 to June 18	1.7		1.7		2.3	90.8		99.19		98.94	99.87		99.41		82.5	99.69		100.00		95.81	98.89		98.89		44.4
June 19 to June 25	1.5		1.4		1.9	95.34		92.2		98.06	99.67		94.5		74.2	98.96		99.59		100.00	98.93		97.58		65.6
June 26 to July 2	1.4		1.3		1.9	83.3		90.3		98.37	95.06		96.63		57.4	94.3		97.32		92.3	90.1		98.55		97.34
July 3 to July 11	1.4		1.4		2.0	87.3		91.0		97.29	93.6		97.29		87.9	94.3		96.97		96.38	94.3		54.1		78.8
July 13 to July 18		1.0		1.2			62.5		63.5			93.5		83.9			96.14		70.5			94.54		98.55	
July 20 to July 25		1.4		1.7			87.3		97.13			96.38		96.29			97.85		99.83			90.2		91.7	
July 27 to Aug. 1		1.1		1.4			90.6		88.5			86.4		87.9			84.0		98.77			76.8		90.0	
Aug. 3 to Aug. 8		1.3		1.6			82.4		83.8			81.9		91.1			94.6		93.0			94.6		61.5	
Aug. 10 to Aug. 16	2.0		1.7		2.1	87.2		87.3		70.5	78.0		69.7		80.8	99.76		99.66		99.85	94.6		94.8		91.9
Aug. 17 to Aug 23	3.4		1.8		2.2	90.10		95.45		94.1	97.63		96.07		96.19	99.98		98.67		99.77	89.3		49.1		83.1
Aug. 24 to Aug 30	3.4		1.9		1.9	98.28		98.42		99.25	98.29		95.43		93.1	98.83		97.58		99.84	75.0		39.1		97.5
Aug. 31 to Sept. 4	3.5		1.7		2.0	98.00		95.60		98.78	99.48		94.8		94.5	99.61		93.3		93.4	90.6		97.5		98.57
Sept 8 to Sept. 14		2.3		1.4			89.9		90.6			93.9		91.1			96.67		94.6			94.6		51.4	
Sept. 15 to Sept. 21		2.6		1.5			79.2		83.7			81.5		97.27			83.2		98.25			50 7		90.0	
Sept. 22 to Sept. 28		4.0		2.4			97.77		92.7			98.48		87.7			99.88		97.44			99.58		94.5	
Sept. 29 to Oct. 3		2.6		1.8			90.8		86.3			90.4		92.4			98.75		97.19			98.04		98.77	
Oct. 5 to Oct. 11	3.2		1.4		2.5	84.6		77.5		93.3	97.48		90.7		88.9	98.10		95.00		98.09	96.25		90.0		99.43
Oct. 12 to Oct 18	3.5		1.5		2.7	87.7		78.5		90.0	96.79		81.4		91.9	99.29		80.0		99.28	98.20		89.2		99.88
Oct. 19 to Oct. 25	3.6		1.5		2.7	93.7		65.0		83.8	93.1		81.8		89.9	98.00		76.1		99.00	99.54		89.5		94.3
Oct. 26 to Nov. 1	2.8		1.5		2.2	94.4		68.9		90.5	96.20		80.3		94.2	96.58		77.2		92.6	98.95		90.0		73.2
Nov. 2 to Nov. 8	3.0		2.0		2.3	82.9		63.8		75.8	67.0		22.3		92.5	92.0		32.1		97.11	91.3		42.8		91.2
Nov. 9 to Nov. 13	4.4		2.9		3.3	95.53		91.4		94.1	99.74		96.35		93.1	99.93		96.66		99.99	99.00		50.0		90.0

The work at the Testing Station was carried on as a part of the work of the Disposal Division, and those responsible for the results above mentioned are:

Ezra B. Whitman, Division Engineer.
C. A. Emerson, Jr., Assistant Division Engineer.
H. C. McRae, Chemist.
Dr. E. G. Birge, Bacteriologist.
A. E. Falkenberg, Assistant Engineer.
G. J. Armeling, Assistant Chemist.
J. Bosley Thomas, Assistant Bacteriologist.
J. J. Neal, Inspector.

ACKNOWLEDGEMENTS.

Mr. George W. Fuller, of the firm of Hering & Fuller, made a number of valuable suggestions in carrying out the work of the Sewage Testing Station.

Professor Earle B. Phelps, of the Massachusetts Institute of Technology, in connection with his work with the United States Geological Survey, and later in the employ of the Sewerage Commission, was engaged to advise in connection with the studies of disinfection of sewage. Mr. Phelps was also of great assistance in carrying out the routine work of the laboratory—many valuable suggestions for this work having been given by him.

JONES FALLS IMPROVEMENT.

On beginning the study of the sewering and draining of the City, I was impressed with the possibility of incorporating Jones' Falls as a part of the storm-water drainage system, by enclosing it in reinforced concrete conduits and constructing a street on the redeemed strip of land. This is fully covered in my report to the Commission for 1906.

The elimination of this stream is second in importance to the sewering of the City. By dividing the construction into two sections, advertising extensively, and utilizing the stone from the tunnel on the second section to build the conduits for that section, we have been able to let these contracts for about $1,300,000, being less than my original estimate, as contained in my report to the Commission for 1906—viz., $1,600,000.

The contract for the construction of Section No. 1, extending from a point about 200 feet south of Baltimore Street to a point about 100 feet south of Centre Street, was let to M. M. Elkan, of Macon, Ga., and that for the construction of Section No. 2, extending from a point about 100 feet south of Centre Street to a point near Union Station, (amounting to over $700,000—the largest single contract ever let by the City), was let to Fisher & Carozza, of Baltimore. The work is progressing in a most satisfactory manner.

Unless one stops to consider the far-reaching effects of this improvement on the whole City, one cannot appreciate its value; among these effects are the improvement of the drainage conditions, the removal of the menace to health, the elimination of all bridges (together with the cost of their maintenance) and of all pipes crossing the Falls, the stopping of flooding, preventing the breeding of mosquitoes in stagnant pools in the summer, and the redemption of a strip of land 75 feet in width through the heart of the City, extending from the docks to the depots and containing approximately 12½ acres or about 544,000 square feet, on which a broad, smooth street will be built, transforming the present properties from abutting on an open sewer to facing on a broad roadway, and increasing the taxes sufficiently to pay the interest on the cost of the improvement and create a sinking fund to redeem the bond issue, also saving a large sum annually in the cost of trucking between the docks and the railroads by providing a smooth street on easy grades, on which one horse will

be able to do work which now requires two. Other cities, at a cost of millions of dollars, are condemning land in order to secure new outlets for growing traffic, while in this case the City of Baltimore is redeeming useless land for this broad, new street as an incident to the making of a much-needed improvement in the drainage conditions. From a financial standpoint it will be a paying investment.

I find that the City has spent over $2,000,000 in building the present retaining walls, which did not eliminate any of the above-mentioned troubles, or redeem the land.

CONCLUSION.

One of our greatest difficulties has been to maintain the force at a high degree of efficiency. On account of our work attracting such wide attention, we are constantly losing men through better offers from widely scattered localities. The personnel of the force today is practically a new one.

I wish to take this opportunity of expressing my appreciation of the loyal assistance rendered me by the Division Engineers and their assistants, covering the various divisions of the work, viz.: Mr. Albert M. Brosius, First Assistant; Mr. Ezra B. Whitman, ex-Division Engineer of the Disposal Division; Mr. Thomas D. Pitts, Office Division, (especially with reference to the designing of the pumps); Mr. Alfred H. Hartman, of the Low Level and Storm-Water Divisions, and Mr. Oliver W. Connet, of the High Level Division.

The work continues to attract visitors from all sections of the world and is advertising the City extensively.

In order to make the report as comprehensible as possible to the layman, I have included a number of photographs and maps.

Respectfully submitted,

CALVIN W. HENDRICK,
Chief Engineer.

TABLES

TABLE No. 1.

PERSONNEL OF CHIEF ENGINEER'S STAFF.

NAME.	TITLE.	ENTERED SERVICE.	REMARKS.
Albert M. Brosius.....	First Assistant.....	Jan. 2, 1906.	
Ezra B. Whitman.....	Division Engineer.....	Jan. 2, 1906.	Resigned October 1, 1911.
Oliver W. Connet.....	Division Engineer.....	Jan. 2, 1906.	
Thomas D. Pitts.....	Division Engineer.....	June 4, 1906.	
Alfred H. Hartman....	Division Engineer	Jan. 15, 1906.	
A. F. Nagle.....	Mechanical Engineer...	May 13, 1907.	Resigned March 3, 1911.
F. H. Cronin.....	Mechanical Engineer...	May 9, 1911.	
J. Fletcher Apsey.....	Asst. to Div. Engineer.	Jan. 15, 1906.	
W. A. Megraw.....	Asst. to Div. Engineer.	Dec. 3, 1906.	
H. C. McRae.....	Asst. to Div. Engineer.	Jan. 21, 1907.	
R. L. Burwell....	Asst. to Div. Engineer.	June 24, 1907.	
John J. Frederick.....	Secretary.....	Oct. 1, 1905.	
Levin J. Houston, Jr...	Asst. Engineer "A"....	Jan. 15, 1906.	
Raymond H. Williams..	Asst. Engineer "A"....	Mar. 1, 1906.	Resigned October 1, 1911.
Elliott H. Burwell.....	Asst. Engineer "A"....	Jan. 15, 1906.	
Covington K. Allen....	Asst. Engineer "A"....	June 1, 1907.	
Henry S. Shryock.....	Asst. Engineer "A"....	May 1, 1906.	
Arthur C. Toner.....	Asst. Engineer "A"....	Jan. 15, 1906.	
August E. Falkenberg...	Asst. Engineer "A"....	Feb. 1, 1906.	Resigned October 1, 1911.
Thomas M. Ward.....	Asst. Engineer "A"....	Nov. 16, 1911.	
Frank J. Parran.....	Asst. Engineer "A"....	May 28, 1907.	Promoted from Assistant Engineer "B" October 4, 1911.
Henry S. Regester.....	Asst. Engineer "B"....	Jan. 15, 1906.	
Harry F. Schaefer.....	Asst. Engineer "B"....	June 20, 1907.	

TABLE No. 1—*Continued.*

PERSONNEL OF CHIEF ENGINEER'S STAFF.

NAME.	TITLE.	ENTERED SERVICE.	REMARKS.
John Moore, Jr.....	Asst. Engineer "B"....	May 16, 1907.	
Ralph Hutchins.....	Asst. Engineer "B"....	Feb. 1, 1906.	
William L. Williams....	Asst. Engineer "B"....	June 27, 1907.	
J. H. Ensey.....	Asst. Engineer "B"....	Nov. 29, 1911.	
F. W. Caspari.....	Asst. Engineer "B"....	Feb. 1, 1906.	
Joseph H. Straus, Jr....	Asst. Engineer "B"....	June 9, 1908.	Promoted from Draftsman "C" Jan. 1, 1911.
Robert Rumbold.....	Asst. Engineer "B"....	Feb. 1, 1906.	Promoted from Rodman "A" Jan. 1, 1911.
J. Wightman Cleaveland	Asst. Engineer "B"....	Dec. 24, 1906.	Promoted from Rodman "A" Oct. 4, 1911.
Gustav J. Requardt.....	Asst. Engineer "B"....	June 23, 1909.	Promoted from Rodman "A" Oct. 4, 1911.
Edward F. Davis.....	Inspector "A".....	Dec. 24, 1906.	
Charles S. York.....	Inspector "A".....	Nov. 7, 1906.	
Frederick S. Jackson..	Inspector "A".....	July 2, 1907.	Resigned June 15, 1911.
John H. Sothoron.....	Inspector "A".....	July 5, 1907.	
John J. Neal.....	Inspector "A".....	Nov. 9, 1906.	
Milton J. Ruark.....	Inspector "A".....	Jan. 22, 1906.	
John Martin.....	Inspector "A".....	Mar. 3, 1910.	Resigned Sept. 1, 1911.
Charles I. Hammond....	Inspector "B".....	Nov. 7, 1906.	
Aulbin D. Tapscott.....	Inspector "B".....	Nov. 19, 1906.	
William H. Bell.....	Inspector "B".....	Dec. 19, 1906.	Resigned Nov. 15, 1910, reappointed Oct. 3, 1911.
George T. Robinson....	Inspector "B".....	June 1, 1907.	
Stephen A. Lusby.....	Inspector "B".....	April 6, 1907.	
A. E. B. Jones.....	Inspector "B".....	Jan. 15, 1906.	
Walter J. Caple.....	Inspector "B".....	July 5, 1907.	Promoted from Inspector "C" May 15, 1911.

TABLE No. 1—*Continued.*

PERSONNEL OF CHIEF ENGINEER'S STAFF.

Name.	Title.	Entered Service.	Remarks.
F. D. Christhilf	Inspector "B"	July 7, 1909.	Promoted from Inspector "C" Jan. 1, 1911.
Henry A. Albert	Inspector "C"	June 1, 1907.	
William A. Brogden	Inspector "C"	Nov. 7, 1906.	Resigned Nov. 15, 1910, reappointed Oct. 10, 1911.
John F. Garrett	Inspector "C"	Nov. 16, 1906.	
Horace A. Browne	Inspector "C"	July 5, 1907.	
Karl E. G. Kaufman	Inspector "C"	Jan. 15, 1906.	
Henry Kelly	Inspector "C"	July 17, 1907.	
Albert J. Boyle	Inspector "C"	Aug. 8, 1907.	Resigned June 13, 1911.
F. DeWolf Theobald	Inspector "C"	Aug. 9, 1907.	
J. Hamilton Davidson	Inspector "C"	Oct. 9, 1907.	
A. S. Bartholomaei	Inspector "C"	Oct. 9, 1907.	
John C. Strohm	Inspector "C"	Jan. 15, 1906.	
George E. Schaeffer	Inspector "C"	Aug. 11, 1908.	
William J. Boyle	Inspector "C"	Apr. 16, 1907.	
George B. Roberts	Inspector "C"	June 23, 1909.	Resigned April 15, 1911.
William Byrd	Inspector "C"	June 1, 1907.	
E. B. Richards	Inspector "C"	Jan. 15, 1906.	
J. H. Gambrell	Inspector "C"	Jan. 15, 1906.	
Martin W. Garrett	Inspector "C"	July 19, 1909.	
Lawrence H. Francis	Inspector "C"	Jan. 15, 1906.	
John Lynch	Inspector "C"	June 1, 1909.	
John A. Holthaus	Inspector "C"	Nov. 29, 1911.	
H. Howard Williams	Inspector "C"	Sept. 21, 1906.	Promoted from Rodman "A" Oct. 4, 1911.

TABLE No. 1—*Continued.*

PERSONNEL OF CHIEF ENGINEER'S STAFF.

Name.	Title.	Entered Service.	Remarks.
J. Milton Knight.....	Inspector "C".....	Aug. 4, 1908.	Promoted from Rodman "A" Oct. 4, 1911.
William F. Dolliver...	Inspector "C".....	July 7, 1909.	Promoted from Rodman "A" Oct. 4, 1911.
Harry G. Maynard.....	Inspector "C".....	June 23, 1909.	Promoted from Rodman "A" Oct. 4, 1911.
John Daugherty	Inspector "C".....	May 17, 1909.	Promoted from Rodman "B" Oct. 4, 1911.
Frank H. Firoved.....	Draftsman "A".....	Jan. 23, 1906.	
J. Elmer Shepperd.....	Draftsman "A".....	July 2, 1906.	
Claude A. Murphy.....	Draftsman "A".....	Jan. 15, 1906.	
E. V. Hax	Draftsman "A".....	Jan 15, 1906.	Promoted from Draftsman "B" May 15, 1911.
C. Boone Sadler.....	Draftsman "A".....	Aug. 1, 1907.	Promoted from Draftsman "B" Jan. 1, 1911.
Maurice F. Rodgers....	Draftsman "A".....	Dec. 1, 1905.	Promoted from Record Clerk, Oct. 4, 1911.
George W. Townsend..	Draftsman "B".....	Nov. 18, 1907.	
Clarence G. Harig.....	Draftsman "B".....	Apr. 20, 1908.	Promoted from Draftsman "C" Oct. 4, 1911.
David B. Stewart, Jr...	Draftsman "B".....	Aug. 2, 1909.	Promoted from Rodman "A" July 1, 1911, resigned Aug. 18, 1911.
Harry J. Armstrong....	Draftsman "C".....	June 9, 1908.	Resigned Mar. 1, 1911.
Robert Dall, Jr.....	Draftsman "C".....	July 18, 1910.	
Thomas D. Conn.....	Draftsman "C".....	Nov. 21, 1910.	
J. Lee Chapman.....	Draftsman "C".....	Nov. 15, 1911.	
E. H. Brosius.....	Draftsman "C".....	May 9, 1911.	
C. Karl Klaesius.....	Draftsman "C".....	Mar. 1, 1911.	Resigned Aug. 8, 1911.
H. N. O'Brien.....	Draftsman "C".....	Oct. 11, 1907.	Resigned Aug. 6, 1911, reappointed Nov. 15, 1911.
J. F. Diggs.....	Draftsman "C".....	Oct. 3, 1911.	
C. Edgar Wood.....	Draftsman "C".....	Oct. 3, 1911.	

TABLE No. 1—*Continued.*

PERSONNEL OF CHIEF ENGINEER'S STAFF.

NAME.	TITLE.	ENTERED SERVICE.	REMARKS.
William A. Twamley...	Draftsman "C".....	Dec. 4, 1911.	
Samuel Appleby.....	Draftsman "C".....	Aug. 1, 1911.	
Dudley G. Frazer.....	Draftsman "C".....	Aug. 1, 1911.	
Leslie C. Frank.....	Draftsman "C".....	July 25, 1911.	
G. Herman Carl.....	Draftsman "C".....	July 25, 1911.	
E. B. Gilmour.....	Draftsman "C".....	June 12, 1911.	
C. F. Black.....	Draftsman "C".....	June 12, 1911.	
F. E. Rasmers.....	Draftsman "C".....	June 12, 1911.	Resigned Dec. 15, 1911.
William J. Frere, Jr.....	Draftsman "C".....	June 6, 1911.	
Herbert W. Chipchase..	Draftsman "C".....	Nov. 1, 1911.	
B. F. O'Connor, Jr.....	Draftsman "C".....	Oct. 17, 1911.	
D. W. Glass.....	Draftsman "C".....	Dec. 26, 1911.	
George J. Armeling....	Asst. Chemist.....	Aug. 8, 1907.	
H. R. Gundlach.....	Bacteriologist	Nov. 1, 1911.	
William Wagner.....	Rodman "A".....	Jan. 15, 1906.	
R. Taylor Tunstall....	Rodman "A".....	Jan. 15, 1906.	
J. Carroll Daily.....	Rodman "A".....	Feb. 1, 1906.	Resigned Aug. 1, 1911.
Isadore Behrman.....	Rodman "A".....	July 22, 1910.	Transferred from Draftsman "C" Mar. 15, 1911.
L. Carroll Miller.....	Rodman "A".....	Jan. 25, 1906.	
Wilford H. Herbert....	Rodman "A".....	July 16, 1906.	Promoted from Rodman "B" Oct. 4, 1911.
Thomas W. Sasscer....	Rodman "A".....	May 20, 1908.	Promoted from Rodman "B" Oct. 4, 1911.
Harry M. Webb.....	Rodman "A".....	June 1, 1909.	Promoted from Rodman "B" Oct. 4, 1911.
Harry N. Brannan.....	Rodman "A".....	Oct. 3, 1911.	

TABLE No. 1—*Concluded.*

PERSONNEL OF CHIEF ENGINEER'S STAFF.

NAME.	TITLE.	ENTERED SERVICE.	REMARKS.
J. S. Thompson, Jr.	Rodman "A"	Oct. 3, 1911	
Charles H. Brooks	Rodman "B"	Nov. 16, 1907.	
Conrad F. Kraeter	Rodman "B"	Sept. 20. 1906.	
Paul Wroth	Rodman "B"	May 19, 1908.	
H. W. Johenning	Rodman "B"	June 24, 1908.	
C. G. Walker	Rodman "B"	Dec. 1, 1911.	
John T. Merritt	Rodman "B"	Nov. 29, 1911.	
A. T. Hilton	Rodman "B"	Oct. 3, 1911.	
W. K. Potter	Rodman "B"	Oct. 3, 1911.	
W. H. Vickers	Rodman "B"	Oct. 17, 1911.	
C. J. Hellen	Rodman "B"	June 12, 1911.	Transferred from Draftsman "C" Nov. 8, 1911.
J. P. Joynes	Rodman "B"	June 12, 1911.	
William C. Briscoe	Rodman "B"	Nov. 16, 1909.	
Edgar C. Hasson	Stenographer	July 1, 1907.	Resigned Dec. 23, 1911.
G. Archer Hays	Stenographer	Sept. 3, 1907.	Resigned April 1, 1911.
Adam W. Gerlach	Stenographer	June 16, 1909.	
J. L. Pennington	Stenographer	July 23, 1909.	
Victor Klausmeyer	Stenographer	Dec. 5, 1910.	Resigned April 1, 1911.
F. W. Ensey	Stenographer	Apr. 11, 1911.	
W. L. Prout	Stenographer	Apr. 5, 1911.	
Henri H. Smith	Clerk	Aug. 18, 1910.	

TABLE No. 2.

STATEMENT OF CONTRACTS LET PRIOR TO 1911.

Contract.	Date of Contract.	Name of Contractor.	Proportion of Work Completed Dec. 31, 1911.
Wash Borings No. 1	July 2, 1906.	B. F. Smith & Bro.	Completed July 28, 1906.
Testing Plant	Oct. 17, 1906.	Malcolm W. Hill Co.	Completed July 1, 1907.
Laboratory	Oct. 18, 1906.	Wm. Kirkpatrick	Completed Feb. 1, 1907.
Storm Water No. 1	Oct. 18, 1906.	M. A. Talbott Co.	Completed April 14, 1908.
Sanitary Sewers—Walbrook	Oct. 29, 1906.	M. A. Talbott Co.	Completed June 27, 1907.
Outfall Sewer, Section No. 1	Dec. 7, 1906.	M. A. Talbott Co.	Completed August 1, 1909.
Outfall Sewer, Section No. 2	Dec. 7, 1906.	M. A. Talbott Co.	Completed August 6, 1908.
Sewage Pumping Plant Mach'y.	Dec. 12, 1906.	Bethlehem Steel Co.	97 per cent.
West Low Level Interceptor, Section No. 1	May 1, 1907.	Metropolitan Contr. Co.	Completed March 26, 1908.
West Low Level Interceptor, Section No. 2	May 1, 1907.	Metropolitan Contr. Co.	Completed March 26, 1908.
Outfall Sewer, Section No. 3	May 4, 1907.	J. Connelly Const. Co.	Completed June 7, 1909.
Outfall Sewer, Section No. 7	May 4, 1907.	J. Connelly Const. Co.	Completed Dec. 19, 1908.
Outfall Sewer, Section No. 8	May 4, 1907.	J. Connelly Const. Co.	Completed Nov. 1, 1908.
Outfall Sewer, Section No. 9	May 4, 1907.	A. F. Helm	Completed Oct. 13, 1908.
Outfall Sewer, Section No. 6	May 28, 1907.	David Peoples	Completed Oct. 16, 1908.
Storm-Water No. 2	May 28, 1907.	David Peoples	Completed May 11, 1909.
Storm-Water No. 3	May 28, 1907.	David Peoples	Completed May 15, 1909.
High Level Interceptor, Section No. 1	May 29, 1907.	M. A. Talbott Co.	Completed Nov. 5, 1908.
High Level Interceptor, Section No. 2	May 29, 1907.	M. A. Talbott Co.	Completed May 1, 1909.

TABLE No. 2—*Continued.*

STATEMENT OF CONTRACTS LET PRIOR TO 1911.

CONTRACT.	DATE OF CONTRACT.	NAME OF CONTRACTOR.	PROPORTION OF WORK COMPLETED DEC. 31, 1911.
Outfall Sewer, Section No. 4.	May 29, 1907.	M. A. Talbott Co.....	Completed March 17, 1909.
Outfall Sewer, Section No. 5..	May 29, 1907.	M. A. Talbott Co.....	Completed August 1, 1909.
Outfall Sewer, Section No. 10.	June 10, 1907.	J. Connelly Const. Co....	Completed Nov. 1, 1908.
	NOTE.—This contract was first awarded to J. Erwin Hillpot, but he was unable to furnish satisfactory bond and the contract was reawarded to the J. Connelly Construction Company, the next lowest bidder.		
Sewage Disposal Plant, Clearing and Grubbing Disposal Area	July 8, 1907.	Lane Bros. Co. & Jones..	Completed Sept. 1, 1909.
	NOTE.—This contract was awarded on April 24 to J. Erwin Hillpot, but he was unable to furnish a satisfactory bond and the work was readvertised.		
Digging Test Well on site of Sewage Pumping Station....	July 29, 1907.	Metropolitan Contr. Co.	Completed August 27, 1907.

TABLE No. 2—*Continued.*

STATEMENT OF CONTRACTS LET PRIOR TO 1911.

Contract.	Date of Contract.	Name of Contractor.	Proportion of Work Completed Dec. 31, 1911.
West Low Level Interceptor, Section No. 3	Feb. 28, 1908.	Metropolitan Contr. Co.	Completed Oct. 30, 1908.
East Low Level Interceptor, Section No. 1	May 8, 1908.	T. J. O'Connell	Completed May 15, 1909.
East Low Level Interceptor, Section No. 2	May 8, 1908.	T. J. O'Connell	Completed May 15, 1909.
Grading Manderson lot	May 8, 1908.	Gustavus Heckel	Completed June 29, 1908.
Sewage Pumping Station, Superstructure	May 9, 1908.	Noel Construction Co.	98 per cent.
Sewage Pumping Station, Substructure	May 9, 1908.	Noel Construction Co.	Completed August 1, 1911.
Storm Water Contract No. 4	June 17, 1908.	Reilly & Riddle	Completed March 16, 1909.
Roadway, Willis avenue	Aug. 7, 1908.	L. B. McCabe	Completed Nov. 30, 1908.
Storm Water Contract No. 5	Sept. 17, 1908.	David Peoples	Completed Jan. 23, 1909.
Roadways on Baltimore Brick Company's property	Sept. 28, 1908.	Thos. Mullan	Completed Dec. 7, 1908.
West Low Level Interceptor, Section No. 4	Oct. 28, 1908.	Metropolitan Contr. Co.	Completed July 10, 1909.
Force Main	Nov. 2, 1908.	Warren F. Brenizer Co.	Completed Oct. 12, 1909.
Force Main Sewer	Nov. 4, 1908.	Ryan & Reilly	Completed Sept. 30, 1909.
Sewage Disposal Plant	Nov. 4, 1908.	New York Continental Jewell Filtration Co.	Completed Dec. 23, 1910.
Storm Water Contract No. 6	Dec. 31, 1908.	Booth & Flinn	Completed Jan. 28, 1910.

TABLE No. 2—*Continued.*

STATEMENT OF CONTRACTS LET PRIOR TO 1911.

CONTRACT.	DATE OF CONTRACT.	NAME OF CONTRACTOR.	PROPORTION OF WORK COMPLETED DEC. 31, 1911.
Filter Stone for Sewage Disposal Plant	Dec. 31, 1908.	Fisher & Carozza	Completed June 1, 1911.
Sanitary Contract No. 35, Lateral Sewers, District No. 26.	Mar. 6, 1909.	T. Wallace Reilly	Completed Oct. 7, 1909.
Sanitary Contract No. 37, Sewage Disposal Plant, water Tanks and Tower	Feb. 19, 1909.	Horace E. Horton (Chicago Bridge and Iron Works)	Completed Sept. 1, 1909.
Sanitary Contract No. 38, Lateral Sewers, District No. 28.	April 19, 1909.	Ryan & Reilly	Completed Nov. 10, 1909.
Sanitary Contract No. 39, Lateral Sewers, District No. 30.	April 15, 1909.	James Ferry & Sons	Completed Sept. 25, 1909.
Sanitary Contract No. 40, Forest Park Sewage Disposal Works	Sept. 15, 1909.	Lane Bros. Co. & Jones.	Completed Oct. 25, 1910.
Sanitary Contract No. 41, Trunk Sewers, District No. 48	Sept. 10, 1909.	T. Wallace Reilly	Contract abandoned June 15, 1910. 72% of work completed.
Sanitary Contract No. 42, Jones Falls Interceptor, Section No. 1	Sept. 22, 1909.	M. A. Talbott Co.	Completed Oct. 15, 1910.
Sanitary Contract No. 43, Lateral Sewers, District No. 29.	Sept. 11, 1909.	Wm. McCarthy & Co.	Completed April 25, 1910.

TABLE No. 2—*Continued.*

STATEMENT OF CONTRACTS LET PRIOR TO 1911.

CONTRACT.	DATE OF CONTRACT.	NAME OF CONTRACTOR.	PROPORTION OF WORK COMPLETED DEC. 31, 1911.
Sanitary Contract No. 44, Lateral Sewers, District No. 21.	Dec. 18, 1909.	David Peoples.....	Completed Aug. 15, 1910.
Sanitary Contract No. 45, Lateral Sewers, District No. 27.	Dec. 18, 1909.	David Peoples.....	Completed Aug. 8, 1910.
Storm Water Contract No. 7..	June 2, 1909.	Wm. McCarthy & Co...	Completed Dec. 31. 1909.
Storm Water Contract No. 8..	Sept. 11, 1909.	M. O'Herron & Co.....	Completed Dec. 31. 1909.
Sanitary Contract No. 46, Power-house, Pump House and Land Conduits, Sewage Disposal Plant.....	Feb. 21, 1910.	Ryan & Reilly.....	Completed April 1, 1911.
Sanitary Contract No. 47, Underwater Discharge Conduits, Sewage Disposal Plant.	Mar. 10, 1910.	B. F. Sweeten & Son...	Completed Dec. 2, 1911.
Sanitary Contract No. 48, Lateral Sewers, District 19-B..	Feb. 28, 1910.	Irwin Brothers.....	Completed Oct. 15, 1910.
Sanitary Contract No. 49, Lateral Sewers, District No. 35..	Feb. 28, 1910.	Irwin Brothers.....	Completed Aug. 12, 1910.
Sanitary Contract No. 50, Jones Falls Interceptor, Section No. 2.....	May 20, 1910.	United Engineering & Construction Co.....	Completed May 18, 1911.
Sanitary Contract No. 51, Electrical and Mechanical Equipment, Sewage Disposal Plant..	May 21, 1910.	McCay Engineering Co..	98 per cent.

TABLE No. 2—*Concluded.*

STATEMENT OF CONTRACTS LET PRIOR TO 1911.

Contract.	Date of Contract.	Name of Contractor.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 52, Lateral Sewers, District No. 19-A, etc.	June 9, 1910.	Wm. McCarthy & Co.	Completed Jan. 16, 1911.
Sanitary Contract No. 53, Lateral Sewers, District No. 25, etc.	June 23, 1910.	D. V. Ault & Co.	Completed Dec. 7, 1910.
Sanitary Contract No. 54, Trunk Sewers, District No. 48.	July 28, 1910.	W. H. & C. F. Thompson	Completed Mar. 10, 1911.
Sanitary Contract No. 55, Lateral Sewers, District No. 14.	Sept. 16, 1910.	B. F. Sweeten & Son	Completed April 12, 1911.
Sanitary Contract No. 56, Coal and Ash Conveying Plant, Sewage Pumping Station	Sept. 20, 1910.	Dietz Engineering Co.	85 per cent.
Sanitary Contract No. 57, Lateral Sewers, District No. 34-A	Nov. 10, 1910.	Whiting-Middleton Construction Co.	Completed July 14, 1911.
Sanitary Contract No. 58, McMechen Street Interceptor	Nov. 23, 1910.	McCay Engineering Co.	Completed April 3, 1911.
Sanitary Contract No. 59, Electric Wiring, Sewage Pumping Station	Dec. 16, 1910.	Central Electric Co.	75 per cent.
Storm Water Contract No. 9.	Mar. 26, 1910.	David Peoples	Completed June 27, 1911.
Storm Water Contract No. 10.	July 29, 1910.	George F. Beavin	Completed Dec. 24, 1910.

TABLE No. 3.

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 60, Sewage Disposal Plant Laboratory Building.	D. M. Andrew Company.	June 3, 1911	Dimensions 35 feet by 65 feet. Note.—In awarding this contract, consideration was taken of the fact that D. M. Andrews Company offered to do the work in less time than the other low bidder.	$27,000.00	$27,000.00	90 per cent.
Sanitary Contract No. 61, Lateral Sewers, District 40-C.	B. F. Sweeten & Son.	Jan. 10, 1911	44,000 lin. ft. 8-inch sewer. 2,150 lin. ft. 10-inch sewer. 700 lin. ft. 12-inch sewer. 1,150 lin. ft. 15-inch sewer. 425 lin. ft. 18-inch sewer. 56 lin. ft. 24-inch sewer. 125 cu. yds. concrete masonry. 2,500 lin. ft. 4-inch and 6-inch under-drain. 676 M. ft., B. M., sheeting, sheet-piling, etc. 2,240 ft. manholes. 290 manhole frames and covers. 1,750 manhole steps. 34 drop connections. 16,100 lin. ft. vitrified-pipe house-connections. 3,330 branches. 350 lin. ft. vitrified-pipe stand-pipe. 33 lamp-hole frames and covers. 99 water-supply cocks in terminal manholes. 1,500 lin. ft. 1¼-inch pipe for water supply to terminal manholes.	92,090.30	94,736.85	Completed Nov. 1, 1911.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 62, Pratt Street Trunk Sewer.	McCay Engineering Company.	Mar. 9, 1911	4,015 lin. ft. earth excavation in tunnel. 385 lin. ft. 12-inch sewer. 1,320 lin. ft. 15-inch sewer. 625 lin. ft. 18-inch sewer. 580 lin. ft. 20-inch sewer. 1,985 lin. ft. 22-inch sewer. 270 lin. ft. 24-inch sewer. 250 cu. yds. excavation below sub-grade. 5 cu. yds. brick masonry. 520 cu. yds. concrete masonry. 4,000 lin. ft. 4 and 6 inch underdrain. 240 M. ft., B. M., sheeting, sheet-piling, etc. 410 lin. ft. manholes. 1 drop manhole. 21 manhole frames and covers. 275 manhole steps. 14 drop connections. 4,275 lin. ft. house connections. 454 branches. 610 lin. ft. vitrified-pipe standpipes. 660 lin. ft. cast-iron soil-pipe standpipes.	$82,751.73	$85,116.60	Completed Dec. 18, 1911.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 63, Lateral Sewers, District No. 15.	Wm. McCarthy & Co.	Mar. 11, 1911	12,500 lin. ft. 8-inch sewer. 15,000 lin. ft. 10-inch sewer. 4,500 lin. ft. 12-inch sewer. 450 lin. ft. 15-inch sewer. 150 cu. yds. excavation below sub-grade. 10 cu. yds. reinforced concrete masonry. 110 cu. yds. concrete masonry. 4,000 lin. ft. 4 and 6 inch underdrain. 455 M. ft., B. M., sheeting, sheet-piling, etc. 1,900 lin. ft. manholes. 190 manhole frames and covers. 1,400 manhole steps. 32 drop connections. 12,600 lin. ft. vitrified-pipe house-connections. 2,025 branches. 230 lin. ft. vitrified-pipe standpipes. 20 lamphole frames and covers. 60 1-inch water-supply cocks in terminal manholes. 1,000 lin. ft. 1¼-inch pipe for water supply to terminal manholes.	$75,187.00	$79,890.50	Completed Nov. 2, 1911.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 64, Sewage Pumping Station, Water-Piping and Steam Heating.	Warner Steam & Hot Water Heating Company.	Mar. 6, 1911	Steam heating plant and water-supply piping for the Sewage Pumping Station.	$3,052.15	$3,100.00	90 per cent.
Sanitary Contract No. 65, Sewage Disposal Plant, Sewage Screens.	.....	.....	Sewage screens for Sewage Disposal Works.	.....	.....	Bids rejected.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 66, Lateral Sewers, District No. 36-A.	B. F. Sweeten & Son.	June 15, 1911	31,000 lin. ft. 8-inch sewer. 3,650 lin. ft. 10-inch sewer. 800 lin. ft. 12-inch sewer. 2,050 lin. ft. 15-inch sewer. 2,525 lin. ft. 18-inch sewer. 350 lin. ft. 20-inch sewer. 300 lin. ft. 22-inch sewer. 150 cu. yds. excavation below sub-grade. 110 cu. yds. rock excavation. 10 cu. yds. brick masonry. 45 cu. yds. concrete masonry. 2,500 lin. ft. 4 and 6 inch underdrain. 506 M. ft., B. M., sheeting, sheet-piling, etc. 2,480 lin. ft. manholes. 1 special manhole. 280 manhole frames and covers. 1,900 manhole steps. 32 drop connections. 12,240 lin ft. house connections. 2,688 branches. 500 lin. ft. vitrified-pipe standpipes. 34 lamphole frames and covers. 70 1-inch water-supply cocks in terminal manholes. 1,100 1¼-inch water-supply pipes to terminal manholes.	$87,644.75	$96,017.50	88 per cent.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 67, Sewage Pumping Station, Junction of Sewer.	Martin J. Beach	June 8, 1911	85 cu. yds. sewer brick masonry. 500 cu. yds. concrete masonry. 50 sq. yds. granolithic floor. 20,000 lbs. reinforcing steel bars. 200 lin. ft. 18-inch drain. 170 lin. ft. 12 and 15 inch underdrain. 82 M. ft., B. M., sheeting, sheet-piling, etc. 800 sq. yds. water-proofing. 2 manhole frames and covers. 50 manhole steps. 100 lin. ft. house connections. 10 lin. ft. cut granite sill. Note.—This contract included 41.30 ft. of 84-inch sewer, 59.25 ft. of 60-inch sewer, a bellmouth 14.70 ft. long, and a grit chamber 46.5 ft. long, all constructed of concrete with brick-lined inverts.	$16,957.50	$20,937.25	Completed Dec. 30, 1911.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 68, Sewage Disposal Plant, Nozzles for Sprinkling Filters.	Merritt & Co.	Aug. 21, 1911	1,200 nozzles and deflectors. 1,200 special castings.	$2,900.00	$5,700.00	Completed.
Sanitary Contract No. 69, Fixed Screens at Sewage Disposal Works and Sewage Pumping Station.	H. S. Roberts.	July 27, 1911	Fixed screens, etc., for the Sewage Disposal Works and for the Sewage Pumping Station.	$4,723.00	$7,487.00	95 per cent.
Sanitary Contract No. 70, Sewage Disposal Plant, Pier over Discharge Pipes.	.....	....	Pier over Discharge Pipes at Sewage Disposal Works.	.....	.....	Withdrawn.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 71, Lateral Sewer in Alley west of Park Heights Avenue north of Fifth Avenue.	G. R. Roberts.	Aug. 9, 1911	530 lin. ft. 8-inch sewer. 10 cu. yds. excavation below sub-grade. 40 cu. yds. rock excavation. 400 lin. ft. 4-inch underdrain. 1,000 lin. ft. sheeting, sheet-piling, etc. 25 lin. ft. manholes. 3 manhole frames and covers. 18 manhole steps. 160 lin. ft. vitrified-pipe house-connections.	$998.45	$1,132.05	Completed Sept. 30, 1911.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 72, Sewage Pumping Station, Discharge Piping and Valves.	B. F. Sweeten & Son.	Aug. 17, 1911	100 tons 42-inch C. I. pipe. 3 tons 6-inch C. I. pipe. 2 42-inch Venturi meters. 60 cu. yds. concrete. 15 cu. yds. brick masonry. 145 sq. yds. water-proofing. 2,000 lbs. reinforcing steel. 27 M. ft., B. M., sheeting, sheet-piling, etc. 8 42-inch electrically-operated gate valves. 6 6-inch gate valves.	$29,093.50	$33,201.84	48 per cent.
Sanitary Contract No. 73, Sewage Pumping Station, Electric Generators and Switchboard.	Thos. C. Basshor Co.	Sept. 18, 1911	1 35-K. W. Generator with compound engine. 1 15-K. W. Generator with simple engine. Foundations for generators. Piping. Main switchboard and connections.	$5,712.00	$6,947.00	25 per cent.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 74, Lateral Sewers, District No. 20-B.	B. F. Sweeten & Son.	Sept. 22, 1911	53,000 lin. ft. 8-inch sewer. 485 lin. ft. tunnel for 10-inch sewer. 2,785 lin. ft. 10-inch sewer. 800 lin. ft. 12-inch sewer. 1,900 lin. ft. 15-inch sewer. 1,000 lin. ft. 18-inch sewer. 280 lin. ft. 20-inch sewer. 1,025 lin. ft. 22-inch sewer. 1,020 lin. ft. 24-inch sewer. 250 cu. yds. excavation below sub-grade. 300 cu. yds. rock excavation. 10 cu. yds. sewer brick masonry. 510 cu. yds. concrete masonry. 3,000 lin. ft. 4 and 6 inch underdrain. 610 M. ft., B. M., sheeting, sheet-piling, etc. 4,400 lin. ft. manholes. 390 manhole frames and covers. 3,400 manhole steps. 100 drop connections. 25,800 lin. ft. vitrified-pipe house-connections. 3,990 branches. 1,100 lin. ft. vitrified-pipe standpipes. 50 lamphole frames and covers. 118 1-inch water-supply cocks in terminal manholes. 1,600 lin. ft. 1¼ inch water supply pipe to terminal manholes.	$145,830.75	$156,426.60	13 per cent.

TABLE No. 3 -*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 75, High Level Interceptor, Section No. 4.	W. H. & C. F. Thompson.	Sept. 25, 1911	11,000 cu. yds. earth excavation and refill in open trench. 1,366 lin. ft. tunnel. 100 cu. yds. excavation below sub-grade. 450 cu. yds. sewer-brick masonry. 10 cu. yds. vitrified-brick masonry. 4,325 cu. yds. concrete masonry. 11,000 lbs. steel reinforcing. 1,500 lin. ft. 6 and 8 inch underdrain. 235 M. ft., B. M., sheeting, sheet-piling, etc. 6 manhole frames and covers. 125 manhole steps. 345 lin. ft. vitrified-pipe house-connections. 90 lin. ft. C. I. pipe house-connections and standpipes. Note.—This contract includes 2,890.6 ft. of the High Level Interceptor from a point in Eager Street 124 ft. east of the east building line of Calvert Street to a point in Cathedral Street 3.5 ft. north of the north building line of Centre Street. The sewer is constructed of concrete with a brick-lined invert and is 82 in. in diameter.	$95,733.75	$98,733.75	10 per cent.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Sanitary Contract No. 76, Lateral Sewer in Alley east of Park Heights Avenue between Third and Fifth Avenues.	W. H. & C. F. Thompson.	Sept. 25, 1911	840 lin. ft. 8-inch sewer. 400 cu. yds. rock excavation. 200 lin. ft. 4-inch underdrain. 36 lin. ft. standard manholes. 3 manhole frames and covers. 25 manhole steps. 135 lin. ft. vitrified-pipe house-connections. 68 branches.	$3,193.55	$3,211.25	Completed Nov. 3, 1911.
Sanitary Contract No. 77, Sewage Disposal Plant, Revolving Screens.	D'Olier Engineering Co.	Nov. 10, 1911	Revolving screens for Sewage Disposal Works.	$9,645.00	$13,197.00	5 per cent.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Storm-Water Contract No. 11.	Wm. McCarthy & Co.	Jan. 13, 1911	450 lin. ft. 12-inch to 15-inch inlet-connections. 40 lin. ft. 15-inch circular drain. 262 lin. ft. 24-inch circular drain. 1,173 lin. ft. 30-inch circular drain. 345 lin. ft. 36-inch circular drain. 6 cu. yds. brick masonry. 6 cu. yds. concrete. 200 lbs. reinforcing steel. 10 M. ft., B. M., sheeting, sheet-piling, etc. 1,000 cu. yds. rock excavation. 6 manhole frames and covers. 45 lin. ft. manholes. 40 galvanized wrought-iron manhole steps. 13 inlets. 10 inlet heads.	$14,583.70	$15,845.35	Completed May 4, 1911.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Storm-Water Contract No. 12.	C. B. Clark & Co.	Mar. 30, 1911	12,100 cu. yds. earth excavation for 87-inch horseshoe-shaped drain. 448 lin. ft. 14-ft. by 7½ ft. rectangular drain. 1,687 lin. ft. 12 to 18 inch inlet connections. 2,371 lin. ft. 15 to 20 inch circular drain. 3,367 lin. ft. 24 to 36 inch circular drain. 231 cu. yds. brick masonry. 2,877 cu. yds. concrete. 98,000 lbs. reinforcing steel. 10,700 lbs. 12-inch and 9-inch I beams. 2,376 lin. ft. 4 to 8 inch underdrain. 170 M. ft., B. M., sheeting, sheet-piling, etc. 60 cu. yds. embankment. 500 cu. yds. rock excavation. 200 cu. yds. excavation for bellmouth. 299 lin. ft. manholes. 39 manhole frames and covers. 270 manhole steps. 71 inlets. 51 inlet heads.	$83,246.30	$88,438.58	99 per cent.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Storm-Water Contract No. 13.	Ryan & Reilly.	Sept. 22, 1911	21,800 cu. yds. earth excavation for 138 inch by 99 inch drain. 6,089 lin. ft. 12 to 18 inch inlet connections. 4,824 lin. ft. 15 to 20 inch circular drain. 20 lin. ft. 24-inch flat-topped drain. 9,222 lin. ft. 24 to 33 inch circular drain. 2,552 lin. ft. 36 to 45 inch circular drain. 450 cu. yds. brick masonry. 3,544 cu. yds. concrete. 281,770 lbs. reinforcing steel. 8,050 lbs. expanded metal for reinforcing. 5,500 lin. ft. 4 to 10 inch underdrain. 195 M. ft., B. M., sheeting, sheet-piling, etc. 3,500 cu. yds. embankment. 4,400 cu. yds. rock excavation. 94 manhole frames and covers. 651 lin. ft. manholes. 495 manhole steps. 196 inlets. 159 heads for inlets. 250 lin. ft. new granite curb. 350 lin. ft. curb removed and reset. Note.—This contract was awarded to Messrs. Ryan & Reilly for the reason that they undertook to complete the work in 150 working days, whereas the lowest bidder required 300 working days.	$173,229.26	$170,209.90 (See Note.)	21 per cent.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Storm-Water Contract No. 14, Jones Falls Conduits, Section No. 1.	M. M. Elkan.	July 10, 1911	28,000 cu. yds. earth excavation. 900 cu. yds. rock excavation. 1,000 cu. yds. gravel refill. 40,000 cu. yds. concrete masonry. 750 cu. yds. brick masonry. 4,000,000 lbs. steel reinforcing. 12,000 sq. yds. granolithic surfacing. 140,000 lin. ft. of piles. 410 M. ft., B. M., sheeting, sheet-piling, etc. 50 tons C. I. pipe. 900 lin. ft. vitrified sewer pipe, 6 inches to 30 inches in diameter. 17 manhole frames and covers. 40 tons steel I beams. Tearing down and removing six bridges. Note.—This contract covers Section No. 1 of the Jones Falls Conduits, constructed with reinforced concrete, and comprises two (2) rectangular conduits 20 ft. wide and 15½ ft. high, and one (1) rectangular conduit 20 ft. wide and 12½ ft. high.	$533,990.00	$584,275.00	10 per cent.

TABLE No. 3—*Continued.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Storm-Water Contract No. 15.	Martin J. Beach.	Sept. 9, 1911	110 lin. ft. 12-inch inlet connections. 190 lin. ft. 15-inch inlet connections. 285 lin. ft. 15-inch circular drain. 25 lin. ft. 18-inch circular drain. 410 lin. ft. 20-inch circular drain. 255 lin. ft. 24-inch circular drain. 27 cu. yds. concrete masonry. 200 lin. ft. 4 and 6 inch underdrain. 7 M. ft., B. M., sheeting, sheet-piling, etc. 10 cu. yds. rock excavation. 6 manhole frames and covers. 40 lin. ft. manholes. 10 inlets. 7 flush heads for inlets.	$3,720.40	$3,759.37	Completed Nov. 2, 1911.

TABLE No. 3—*Concluded.*

STATEMENT OF CONTRACTS LET DURING THE YEAR 1911, WITH PROPORTION OF WORK COMPLETED DECEMBER 31.

Contract.	Name of Contractor.	Date of Contract.	Principal Items of Work.	Lowest Bid.	Next to Lowest Bid.	Proportion of Work Completed Dec. 31, 1911.
Storm-Water Contract No. 16, Jones Falls Conduits, Section No. 2.	Fisher & Carozza.	Nov. 6. 1911	8,000 cu. yds. earth excavation in trench. 8,000 cu. yds. earth excavation in tunnel. 13,700 cu. yds. rock excavation in trench. 33,500 cu. yds. rock excavation in tunnel. 250 cu. yds. brick masonry. 675 cu. yds. vitrified-brick masonry. 3,340,000 lbs. steel reinforcing. 11,000 sq. yds. granolithic surfacing. 57 tons plate girders. 110 M. ft., B. M., sheeting, sheet-piling, etc. 170 tons C. I. pipe. 900 lin. ft. vitrified sewer pipe, 6 inches to 30 inches in diameter. 18 manhole frames and covers. 4,000 lbs. iron-castings for Junction Chamber. 15 tons steel I beams. Tearing down and removing three bridges. Note.—This contract covers Section No. 2 of the Jones Falls Conduits, constructed with reinforced concrete, and comprises two (2) rectangular conduits 20 ft. wide and 15½ ft. high, and one (1) rectangular conduit 16 ft. wide and 15½ ft. high, and a section of tunnel in rock 29 ft. wide and 28 ft. high.	$703,989.50	$715,046.00	None.

TABLE No. 4.

LENGTHS OF SANITARY SEWERS OF THE VARIOUS SIZES AND MATERIALS CONSTRUCTED TO DECEMBER 31, 1911.

Size.	Materials.	Constructed Previous to 1911. Linear Feet.	Constructed in 1911. Linear Feet.	Total to Dec. 31, 1911. Linear Feet.
11′ x 12′ 3″ Horseshoe	Brick and Concrete	26,351.80	.....	26,351.80
10′ 9″ x 12′ Horseshoe	Brick and Concrete	3,879.21	.....	3,879.21
100″ Diameter	Brick and Concrete	5,109.28	.....	5,109.28
99″ Diameter	Brick and Concrete	4,610.45	.....	4,610.45
84″ Diameter	Brick and Concrete	305.00	54.56	359.56
82″ Diameter	Brick and Concrete	.....	400.00	400.00
80″ Diameter	Brick and Concrete	727.00	.....	727.00
76″ Diameter	Brick and Concrete	633.60	.....	633.60
75″ Diameter	Brick and Concrete	1,589.92	5.00	1,594.92
74″ Diameter	Brick and Concrete	1,931.00	.....	1,931.00
66″ Diameter	Brick and Concrete	2,011.67	.....	2,011.67
64″ Diameter	Brick and Concrete	1,423.00	1,065.75	2,488.75
60″ Diameter	Brick and Concrete	5,151.23	73.95	5,225.18
57″ Diameter	Brick and Concrete	742.90	.....	742.90
56″ Diameter	Brick and Concrete	279.00	88.17	367.17
55″ Diameter	Brick and Concrete	963,88	.....	963.88
52″ Diameter	Brick and Concrete	893.00	.72	893.72
51″ Diameter	Brick and Concrete	2,054.98	.....	2,054.98
50″ Diameter	Brick and Concrete	454.00	337.78	791.78
48″ Diameter	Brick and Concrete	869.94	.....	869.94
45″ Diameter	Brick and Concrete	1,440.00	.....	1,440.00
42″ Diameter (Force Main)	Cast-Iron Pipe	10,440.00	130.00	10,570.00
36″ Diameter	Brick and Concrete	63.61	.....	63.61

TABLE No. 4—*Concluded.*

LENGTHS OF SANITARY SEWERS OF THE VARIOUS SIZES AND MATERIALS CONSTRUCTED TO DECEMBER 31, 1911.

Size.	Materials.	Constructed Previous to 1911. Linear Feet.	Constructed in 1911. Linear Feet.	Total to Dec. 31, 1911. Linear Feet.
30" Diameter	Brick and Concrete	104.20	.....	104.20
30" Diameter	Terra-Cotta Pipe	.....	89.20	89.20
27" Diameter	Brick and Concrete	847.53	2,578.74	3,426.27
24" Diameter	Terra-Cotta Pipe	6,009.04	1,912.08	7,921.12
24" Diameter	Cast-iron Pipe	285.36	12.00	297.36
22" Diameter	Terra-Cotta Pipe	7,607.42	3,182.19	10,789.61
20" Diameter	Terra-Cotta Pipe	2,425.34	2,375.16	4,800.50
18" Diameter	Terra-Cotta Pipe	3,400.35	4,036.51	7,436.86
16" Diameter	Cast-Iron Pipe	218.00	1,022.44	1,240.44
15" Diameter	Terra-Cotta Pipe	11,906.58	6,218.04	18,124.62
12" Diameter	Terra-Cotta Pipe	11,854.14	5,953.86	17,808.00
10" Diameter	Terra-Cotta Pipe	23,900.81	24,746.29	48,647.10
10" Diameter	Cast-Iron Pipe	.....	24.00	24.00
8" Diameter	Terra-Cotta Pipe	260,257.61	113,688.40	373,946.01
8" Diameter	Cast-Iron Pipe	492.40	.....	492.40
Total Length	.....	401,233.25	167,994.84	569,228.09
House Connections	.....	158,890.82	63,608.00	222,498.82
Grand Total	.....	560,124.07	231,602.84	791,726.91
Manholes	.....	1,816	1,107	2,923
Lampholes	.....	166	112	278
[illegible]	.....	20,140	11,273	31,413

TABLE No. 5.

LENGTH OF STORM-WATER DRAINS OF THE VARIOUS SIZES AND MATERIALS CONSTRUCTED TO DECEMBER 31, 1911.

Size.	Materials.	Constructed Previous to 1911. Linear Feet.	Constructed in 1911. Linear Feet.	Total to Dec. 31, 1911. Linear Feet.
Double Rectangular, 84″ x 60″.	Concrete and Brick (Reinf.).	108.30	.....	108.30
Double Rectangular, 69″ x 50″.	Concrete and Brick (Reinf.).	2,856.91	.....	2,856.91
Rectangular, 14′ 0″ x 7′ 6″...	Concrete and Brick (Reinf.).	.....	367.00	367.00
Rectangular, 66″ x 45″.....	Reinforced Concrete.....	1,470.30	.....	1,470.30
Rectangular, 60″ x 42″.....	Concrete and Brick (Reinf.).	785.90	.....	785.90
Rectangular, 60″ x 30″.....	Concrete and Brick (Reinf.).	76.79	.....	76.79
Horseshoe, 138″ x 132″.....	Concrete and Brick.....	125.13	.....	125.13
Horseshoe, 138″ x 99″.....	Concrete and Brick (Reinf.).	.....	260.00	260.00
Horseshoe, 114″.....	Concrete and Brick.....	244.65	.....	244.65
Horseshoe 87″.....	Concrete and Brick.....	.....	1,013.00	1,013.00
Double Line, 30″.....	Cast-Iron Pipe.....	645.17	.....	645.17
Circular, 114″.....	Concrete and Brick.....	1,112.69	.....	1,112.69
Circular, 96″.....	Concrete and Brick.....	3,451.55	.....	3,451.55
Circular, 72″.....	Concrete and Brick.....	1,250.00	9.91	1,259.91
Circular, 69″.....	Concrete and Brick.....	835.00	1,091.04	1,926.04
Circular, 66″.....	Concrete and Brick.....	169.35	.....	169.35
Circular, 62″.....	Concrete and Brick (Reinf.).	245.64	.....	245.64
Circular, 60″.....	Concrete and Brick.....	163.49	.....	163.49
Circular, 57″.....	Concrete and Brick.....	.....	83.47	83.47
Circular, 54″.....	Concrete and Brick (Reinf.).	550.32	445.00	995.32
Circular, 48″.....	Cast-Iron Pipe.....	41.99	.....	41.99
Circular, 48″.....	Brick.....	1,453.27	.....	1,453.27
Circular, 48″.....	Concrete and Brick.....	702.34	.....	702.34
Circular, 48″.....	Concrete.....	1,054.83	.....	1,054.83
Circular, 45″.....	Concrete.....	.....	465.00	465.00
Circular, 42″.....	Cast-Iron Pipe.....	34.35	.....	34.35
Circular, 42″.....	Brick.....	1,689.96	.....	1,689.96
Circular, 42″.....	Concrete and Brick.....	1,701.60	49.99	1,751.59

TABLE No. 5—*Concluded.*

LENGTH OF STORM-WATER DRAINS OF THE VARIOUS SIZES AND MATERIALS CONSTRUCTED TO DECEMBER 31, 1911.

Size.	Materials.	Constructed Previous to 1911. Linear Feet.	Constructed in 1911. Linear Feet.	Total to Dec. 31, 1911. Linear Feet.
Circular, 42"	Concrete	2,282.52		2,282.52
Circular, 36"	Brick	600.81		600.81
Circular, 36"	Concrete and Brick	6,701.99	315.90	7,017.89
Circular, 36"	Concrete	6,055.19		6,055.19
Circular, 33"	Brick	38.23		38.23
Circular, 33"	Concrete and Brick	4,067.37	1,232.00	5,299.37
Circular, 30"	Cast-Iron Pipe	914.33		914.33
Circular, 30"	Brick	183.50	7.00	190.50
Circular, 30"	Concrete and Brick	6,450.72	1,571.40	8,022.12
Circular, 30"	Vitrified Pipe		944.00	944.00
Circular, 30"	Concrete	4,522.68		4,522.68
Circular, 24"	Cast-Iron Pipe	494.13		494.13
Circular, 24"	Terra-Cotta Pipe	28,073.14	3,810.90	31,884.04
Circular, 20"	Cast-Iron Pipe	371.63		371.63
Circular, 20"	Terra-Cotta Pipe	9,696.26	1,499.61	11,195.87
Circular, 18"	Terra-Cotta Pipe	23,336.55	2,317.12	25,653.67
Circular, 15"	Terra-Cotta Pipe	20,682.77	1,585.41	22,268.18
Circular, 12"	Terra-Cotta Pipe	5,770.72	1.15	5,771.87
Jones Falls Conduits			285.00	285.00
Horseshoe, 96" x 93"	Concrete and Brick		56.00	56.00
Inlet Connections, 10" to 20"	Terra-Cotta Pipe	30,955.10	4,538.52	35,493.62
Totals		171,967.17	21,948.42	193,915.59
Inlets and Catch Basins		1,090	154	1,244
Drop Wells		878	99	977

APPENDIX I

PART I

Analysis of Raw and Settled Sewage, Filtered Effluents and Settled Effluents

TABLES 1 TO 42, INCLUSIVE

TABLE No. 1.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million														Bacteria per C. C.	Rate of Flow, Gallons per 24 Hours
			Susp'd Solids			Nitrogen as						Oxygen Consumed						
						Organic												
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.	Free Ammonia	Nitrites	Nitrates	Total	Dissolved	Suspended				
Raw Sewage.																		
Aug. 1	Aug. 2		182.0	130.0	52.0	10.0	10.0	0.0	14.0	0.40	2.0	34	27.0	7.0				18,500
Aug. 3	Aug. 4		100.0	92.0	8.0	16.0	10.0	6.0	12.0	0.25	2.0	23	17.0	6.0				
Aug. 5	Aug. 6		76.0	66.0	10.0	8.0	4.0	4.0	19.0	0.15	0.3	50	42.0	8.0	6,900,000			18,500
Aug. 9	Aug. 10		146.0	81.0	65.0	17.0	15.0	2.0	14.0	1.80	3.5	22	18.0	4.0	4,500,000			27,500
Aug. 11	Aug. 12		102.0	91.0	11.0				18.0	0.00	0.2	26	21.0	5.0	4,600,000			21,000
Aug. 13	Aug. 14		75.0	55.0	20.0	15.0	14.0	1.0	19.0	0.18	0.3	28	27.0	1.0	2,500,000			22,500
Aug. 19	Aug. 20	19.5	1,402.0	322.0	1,080.0	27.0	18.0	9.0	19.0	0.80	2.0	66	32.0	34.0	1,600,000			26,500
Aug. 21	Aug. 22	19.0	296.0	106.0	190.0	14.0	12.0	2.0	20.0	0.80	2.5	56	40.0	16.0	1,900,000			22,500
Aug. 23	Aug. 24	19.0	129.0	69.0	60.0	16.0	14.0	2.0	18.0	0.70	3.5	16	12.0	4.0	2,600,000			49,500
Aug. 27	Aug. 28	19.0	168.0	136.0	32.0	17.0	15.0	2.0	21.0	0.20	1.5	58	47.0	11.0	7,800,000			20,000
Aug. 29	Aug. 30	19.0	127.0	97.0	30.0	16.0	15.0	1.0	24.0	0.05	0.4	39	34.0	5.0	2,000,000			22,500
Aug. 31	Sept. 1	19.0	154.0	120.0	34.0	19.0	15.0	4.0	21.0	0.40	1.3	36	16.0	20.0				40,500
Sept. 4	Sept. 5	20.0	120.0	90.0	30.0	21.0	17.0	4.0	19.0	0.10	0.0	54	35.0	19.0				35,500
Sept. 6	Sept. 7	19.5	220.0	140.0	80.0	15.0	11.0	4.0	23.0	0.20	0.1	62	32.0	30.0				50,500
Sept. 8	Sept. 9	21.0	176.0	118.0	38.0	11.0	10.0	1.0	23.0	0.01	0.0	55	36.0	19.0				46,500
Sept. 14	Sept. 15		230.0	197.0	33.0	18.0	16.0	2.0	22.0	0.18	0.0	48	34.0	14.0				50,000
Sept. 16	Sept. 17	21.0	228.0	166.0	62.0	20.0	14.0	6.0	21.0	0.80	0.0	71	19.0	52.0				62,500
Sept. 20	Sept. 21	21.0	152.0	144.0	8.0	21.0	17.0	4.0	18.0	0.00	0.0	50	35.0	15.0	5,600,000			49,000
Sept. 22	Sept. 23		148.0	114.0	34.0	17.0	11.0	6.0	17.0	0.03	0.0	22	8.0	14.0				61,000
Sept. 24	Sept. 25	20.0	202.0	146.0	56.0	22.0	17.0	5.0	12.0	0.40	0.3	46	29.0	17.0	8,600,000			82,000
Sept. 28	Sept. 29		132.0	124.0	8.0	15.0	12.0	3.0	16.0	2.40	5.0	26	15.0	11.0	8,200,000			139,000
Sept. 30	Oct. 1	19.5	236.0	208.0	28.0	26.0	22.0	4.0	15.0	0.20	0.0	63	16.0	47.0	2,000,000			65,000
Oct. 2	Oct. 3	19.0	246.0	222.0	24.0	19.0	12.0	7.0	21.0	0.00	0.0	37	21.0	16.0				67,500
Oct. 6	Oct. 7	19.0	172.0	168.0	4.0	20.0	14.0	6.0	25.0	0.00	0.0	62	34.0	28.0	2,200,000			43,000
Oct. 8	Oct. 9	19.0	184.0	160.0	24.0	19.0	10.0	9.0	22.0	0.03	0.0	58	30.0	28.0	1,800,000			32,000
Oct. 10	Oct. 11	19.0	312.0	176.0	136.0	14.0	10.0	4.0	24.0	0.30	0.2	66	13.0	53.0	2,700,000			47,000
Oct. 21			First Compartment of Settling Tank Emptied.															
Oct. 22	Oct. 23	17.0	168.0	140.0	28.0	18.0			23.0	0.08	0.0	55	38.0	17.0				37,500
Oct. 24	Oct. 25	16.5	172.0	156.0	16.0	20.0			23.0	0.10	0.0	45	31.0	14.0	1,600,000			
Oct. 26	Oct. 27		148.0	116.0	32.0	20.0			21.0	0.10	1.0	56	26.0	30.0				57,500
Oct. 30	Oct. 31		148.0	136.0	12.0	21.0			26.0	0.03	0.0	40	21.0	19.0	2,200,000			57,000
Nov. 1	Nov. 2		222.0	172.0	50.0	31.0			24.0	0.00	0.0	56	39.0	17.0	1,900,000			52,000
Nov. 3	Nov. 4	16.0	158.0	136.0	22.0	20.0			28.0	0.00	0.0	68	57.0	11.0	1,700,000			
Nov. 15	Nov. 16	14.0	120.0	100.0	20.0	29.0			26.0	0.10	0.1	51	34.0	17.0	2,500,000			59,500
Nov. 17	Nov. 18	14.0	174.0	136.0	38.0	20.0			25.0	0.18	0.1	44	26.0	18.0	2,400,000			52,500
Nov. 21	Nov. 22	15.0	200.0	176.0	24.0	24.0			24.0	0.10	0.0	45	24.0	21.0	1,700,000			66,500
Nov. 23	Nov. 24		260.0	200.0	60.0	9.0			19.0	0.00	0.0	30	13.0	17.0	2,500,000			168,500
Nov. 25	Nov. 26	14.0	120.0	112.0	8.0	19.0			13.0	0.30	4.0	42	31.0	11.0	1,900,000			122,000
Nov. 29		14.0	114.0	106.0	8.0	20.0			21.0	0.20	1.5	56	43.0	13.0				52,000
Dec. 3	Dec. 4	13.0	122.0	108.0	14.0	19.0			23.0	0.20	1.0	84	69.0	15.0	1,500,000			67,000
Dec. 5	Dec. 6	12.5	120.0	96.0	24.0	25.0			21.0	0.13	1.0	49	40.0	9.0	1,700,000			69,000
Dec. 7	Dec. 8		176.0	148.0	28.0	20.0			23.0	0.03	0.0	44	31.0	13.0				69,500
Dec. 11	Dec. 12	12.2	128.0	120.0	8.0	16.0			24.0	0.08	0.0	46	30.0	16.0	1,800,000			102,000
Dec. 13	Dec. 14	12.0	112.0	86.0	26.0	22.0			17.0	0.18	5.0	41	25.0	16.0	1,600,000			66,500
Dec. 15	Dec. 16	12.0	126.0	108.0	18.0	21.0			15.0	0.18	3.0	53	32.0	21.0				92,000
Dec. 20	Dec. 21	11.0	85.0	75.0	10.0	23.0	21.0	2.0	15.0	0.13	2.0	48	33.0	15.0	2,400,000			
Dec. 22	Dec. 23		148.0	102.0	46.0	17.0	10.0	7.0	15.0	0.20	0.0	45	18.0	27.0				
Dec. 26	Dec. 27	12.0	102.0	94.0	8.0	22.0	17.0	5.0	18.0	0.20	0.0	54	24.0	33.0	2,300,000			84,000
Dec. 28	Dec. 29	12.0	110.0	102.0	8.0	19.0	17.0	2.0	19.0	0.00	0.0	47	13.0	34.0	1,300,000			82,000
Jan. 6	Jan. 9	10.9	96.5	80.5	16.0	17.0	13.0	4.0	16.0	0.07	1.3	47	27.0	20.0	1,700,000			108,500
Jan. 9	Jan. 12	10.0	101.0	83.0	18.0	13.0	7.5	5.5	15.0	0.14	2.3	34	16.0	18.0	2,700,000			105,500
Jan. 15	Jan. 18	10.0	101.0	94.0	7.0	22.0	19.0	3.0	13.0	0.18	2.3	61	31.0	30.0	4,300,000			84,000
Jan. 18	Jan. 21	10.3	151.0	139.0	12.0	25.0	19.0	6.0	19.0	0.12	1.3	77	45.0	32.0	3,000,000			77,000
Jan. 25	Jan. 27	10.0	151.0	128.0	23.0	14.0	8.0	6.0	15.0	0.25	0.1	35	17.0	18.0	1,400,000			88,000

TABLE No. 1—*Concluded.*

Period Covered 1908		Temp. Degrees Cent.	Parts per million													Bacteria per C. C.	Rate of Flow, Gallons per 24 Hours
			Susp. Solids			Nitrogen as						Oxygen Consumed					
						Organic			Free Ammonia	Nitrites	Nitrates						
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.				Total	Dissolved	Suspended			
			Raw Sewage.														
Jan. 28	Jan. 30	9.8	220.0	196.0		24.0	21.0	17.0	4.0	17.0	0.10	1.2	72	48.0	24.0	1,900,000	74,500
Feb. 2	Feb. 5	9.2	133.0	111.0		22.0	19.0	14.0	5.0	19.0	0.15	1.4	86	68.0	18.0	1,100,000	75,000
Feb. 5	Feb. 8	8.7	105.0	90.0		15.0	21.0	15.0	6.0	17.0	0.18	1.5	74	40.0	34.0	2,100,000	78,000
Feb. 11	Feb. 14	8.0	187.0	126.0		61.0	20.0	11.0	9.0	16.0	0.17	1.5	79	57.0	22.0	4,200,000	104,000
Feb. 14	Feb. 17	8.6	132.0	111.0		21.0	22.0	16.0	6.0	15.0	0.13	2.3	63	42.0	21.0	1,400,000	92,000
Feb. 20	Feb. 23	8.2	105.0	86.5		18.5	20.0	17.0	3.0	13.0	0.10	1.8	60	44.0	16.0	1,300,000	79,000
Feb. 23	Feb. 26	9.1	230.0	176.0		54.0	14.0	11.0	3.0	19.0	0.08	2.0	84	59.0	25.0	3,000,000	131,500
Feb. 29	Mar. 3	9.5	314.0	280.0		34.0	23.0	18.0	5.0	22.0	0.13	1.2	114	60.0	54.0	1,700,000	82,500
Mar. 3	Mar. 6	8.9	377.0	317.0		60.0	27.0	19.0	8.0	18.0	0.18	1.4	111	50.0	61.0	1,700,000	89,500
Mar. 9	Mar. 12	9.1	241.0	204.0		37.0	30.0	20.0	10.0	19.0	0.18	1.8	100	45.0	55.0	2,400,000	87,000
Mar. 12	Mar. 15	9.5	244.0	212.0		32.0	28.0	21.0	7.0	20.0	0.12	3.0	98	28.0	70.0	2,300,000	80,400
Mar. 18	Mar. 24	10.1	198.0	166.0		32.0	30.0	23.0	7.0	20.0	0.13	2.0	91	21.0	70.0	2,800,000	77,500
Mar. 27	April 11	11.4	175.0	140.0		35.0	30.0	24.0	6.0	19.0	0.32	2.0	62	22.0	40.0	2,400,000	81,000
April 14	April 29	12.9	155.0	129.0		26.0	20.0	15.0	5.0	21.0	0.05	1.0	62	19.0	43.0	2,400,000	94,000
April 30	May 7	13.6	111.0	89.0		22.0	18.0	16.0	2.0	19.0	0.10	10.0	73	60.0	13.0	3,000,000	95,700
May 25	May 26	17.0	96.0	91.0		5.0	19.0	15.0	4.0	14.0	0.03	0.5	130	64.0	66.0		
June 8	June 13	18.6	80.0	66.0		14.0	16.0	15.0	1.0	15.0	0.05	0.5	55	36.0	19.0	2,000,000	64,000
June 15	June 27	19.6	110.0	93.0		17.0	17.0	13.0	4.0	15.0	0.05	2.0	52	30.0	22.0	1,600,000	68,200
June 29	July 11	20.9	74.0	64.0		10.0	12.0	11.0	1.0	13.0	0.08	0.5	59	24.0	35.0	3,900,000	77,600
July 13	July 25	21.7	144.0	109.0		35.0	10.0	8.0	2.0	14.0	0.05	1.0	45	16.0	29.0	3,800,000	92,000
July 27	Aug. 8	21.9	104.0	85.0		19.0	9.0	5.0	4.0	13.0	0.03	1.0	45	16.0	29.0	6,600,000	79,300
Aug. 10	Aug. 22	22.1	94.0	84.0		10.0	11.0	7.0	4.0	14.0	0.05	0.4	47	29.0	18.0	2,300,000	
Aug. 24	Sept. 5	20.7	110.0	90.0		20.0	12.0	9.0	3.0	16.0	0.10	1.0	50	20.0	30.0	3,800,000	67,500
Sept. 7	Sept. 19	19.7	97.0	85.0		12.0	14.0	11.0	3.0	18.0	0.10	0.2	51	28.0	23.0	5,300,000	
Sept. 21	Oct. 3	19.5	105.0	87.0		18.0	13.0	10.0	3.0	19.0	0.10	0.2	66	38.0	28.0	6,700,000	83,700
Oct. 5	Oct. 17	17.8	109.0	90.0		19.0	10.0	5.0	5.0	23.0	0.05	1.0	57	38.0	19.0	6,400,000	76,700

TABLE No. 2.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million														Hours Detention in Tank
			Susp'd Solids			Nitrogen as						Oxygen Consumed			Bacteria per C. C.		
						Organic			Free Ammonia	Nitrites	Nitrates						
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.				Total	Dissolved	Suspended			
Settled Sewage.																	
Aug. 1	Aug. 2		38.0	26.0	12.0	6.0	6.0	0.0	14.0	0.66	2.0	24	23.0	1.0			25.0
Aug. 3	Aug. 4		36.0	33.0	3.0	7.0	2.0	5.0	14.0	0.30	1.0	29	15.0	14.0			
Aug. 5	Aug. 6		26.0	21.0	5.0	12.0	7.0	5.0	18.0	0.15	0.3	32	30.0	2.0	6,500,000		24.8
Aug. 9	Aug. 10		29.5	15.5	14.0	22.0	7.0	15.0	13.0	0.85	3.0	23			3,900,000		16.8
Aug. 11	Aug. 12		48.0	42.5	5.5	5.0	2.0	3.0	22.0	0.00	0.2	22	7.0	15.0	3,100,000		22.4
Aug. 13	Aug. 14		23.0	16.0	7.0	13.0	12.0	1.0	21.0	0.30	0.3	27	27.0	0.0	2,200,000		20.3
Aug. 19	Aug. 20	19.0	51.0	31.0	20.0	20.0	20.0	0.0	20.0	0.60	0.5	35	33.0	2.0	1,800,000		17.3
Aug. 21	Aug. 22	18.5	69.0	40.0	29.0	10.0	9.0	1.0	23.0	1.20	1.5	35	32.0	3.0	2,000,000		21.8
Aug. 23	Aug. 24	18.5	71.0	42.0	29.0	9.0	4.0	5.0	20.0	0.30	3.0	19	18.0	1.0	1,700,000		9.4
Aug. 27	Aug. 28	19.0	81.0	57.0	24.0	13.0	11.0	2.0	23.0	0.18	0.1	43	40.0	3.0	2,800,000		23.0
Aug. 29	Aug. 30	19.0	46.0	33.0	13.0	15.0	14.0	1.0	25.0	0.03	0.1	41	40.0	1.0	2,400,000		20.8
Aug. 31	Sept. 1	19.0	37.0	30.0	7.0	16.0	13.0	3.0	23.0	0.30	1.0	39	17.0	22.0			11.3
Sept. 4	Sept. 5	20.5	34.0	22.0	12.0	15.0	14.0	1.0	21.0	0.15	0.0	48	47.0	1.0			15.6
Sept. 6	Sept. 7	19.5	52.0	38.0	14.0	12.0	9.0	3.0	25.0	0.18	0.1	51	49.0	2.0			9.3
Sept. 8	Sept. 9	22.0	131.0	63.0	68.0	12.0	9.0	3.0	21.0	0.03	0.0	34	27.0	7.0			9.5
Sept. 14	Sept. 15		70.0	66.0	4.0	14.0	13.0	1.0	25.0	0.10	0.0	38	32.0	6.0			9.0
Sept. 16	Sept. 17	22.0	98.0	76.0	22.0	17.0	15.0	2.0	22.0	0.10	0.0	40	16.0	30.0			7.5
Sept. 20	Sept. 21	20.0	68.0	53.0	15.0	18.0	15.0	3.0	18.0	0.30	0.0	40	32.0	8.0	3,100,000		9.1
Sept. 22	Sept. 23		126.0	68.0	58.0	19.0	14.0	5.0	19.0	2.40	3.0	16	5.0	11.0			8.1
Sept. 24	Sept. 25	20.5	71.0	50.0	21.0	23.0	22.0	1.0	11.0	0.33	0.5	30	24.0	6.0	1,800,000		5.5
Sept. 28	Sept. 29		30.0	30.0	0.0	18.0	16.0	2.0	16.0	1.30	3.0	22	8.0	14.0	1,700,000		3.4
Sept. 30	Oct. 1	19.5	26.0	23.0	3.0	25.0	17.0	8.0	16.0	0.45	0.0	40	13.0	27.0	1,600,000		7.0
Oct. 2	Oct. 3	19.0	84.0	65.0	19.0	17.0	12.0	5.0	24.0	0.00	0.0	31	22.0	9.0			6.8
Oct. 6	Oct. 7	19.0	95.0	70.0	25.0	16.0	15.0	1.0	24.0	0.00	0.0	50	45.0	5.0	1,900,000		10.3
Oct. 8	Oct. 9	19.0	91.0	71.0	20.0	14.0	11.0	3.0	23.0	0.10	0.0	45	30.0	15.0	2,400,000		15.4
Oct. 10	Oct. 11	18.0	112.0	80.0	32.0	14.0	10.0	4.0	28.0	0.20	0.3	44	15.0	29.0	1,100,000		9.4
Oct. 21			First Compartment of Settling Tank Emptied.														
Oct. 22	Oct. 23	17.0	92.0	76.0	16.0	18.0			22.0	0.03	0.0	55	39.0	16.0			11.8
Oct. 24	Oct. 25	16.0	72.0	54.0	18.0	17.0			25.0	0.05	0.0	38	29.0	9.0	1,400,000		
Oct. 26	Oct. 27		88.0	64.0	24.0	21.0			25.0	0.15	0.8	41	24.0	17.0			9.8
Oct. 30	Oct. 31		96.0	74.0	22.0	22.0			27.0	0.00	0.1	25	16.0	9.0	1,800,000		7.9
Nov. 1	Nov. 2		102.0	76.0	26.0	18.0			26.0	0.30	0.6	43	35.0	8.0	1,700,000		8.2
Nov. 3	Nov. 4	16.0	92.0	62.0	30.0	18.0			26.0	0.15	0.1	74	62.0	12.0	2,500,000		
Nov. 15	Nov. 16	14.0	100.0	56.0	44.0	21.0			26.0	0.20	0.3	51	43.0	8.0	1,700,000		7.5
Nov. 17	Nov. 18	14.0	128.0	90.0	38.0	16.0			26.0	0.05	0.0	40	26.0	14.0	2,100,000		8.5
Nov. 21	Nov. 22	14.0	104.0	82.0	22.0	19.0			24.0	0.05	0.0	30	19.0	11.0	1,800,000		6.6
Nov. 23	Nov. 24		122.0	80.0	42.0	12.0			15.0	0.00	0.0	23	11.0	12.0	1,000,000		3.8
Nov. 25	Nov. 26	13.5	76.0	50.0	26.0	20.0			13.0	0.30	3.0	39	32.0	7.0	700,000		4.0
Nov. 29		13.0	80.0	66.0	14.0	18.0			22.0	0.22	2.0	53	39.0	14.0			8.5
Dec. 3	Dec. 4	12.0	94.0	74.0	20.0	18.0			27.0	0.15	1.0	74	61.0	13.0	1,500,000		6.8
Dec. 5	Dec. 6	11.5	134.0	88.0	46.0	24.0			24.0	0.18	0.0	82	56.0	26.0	1,900,000		6.5
Dec. 7	Dec. 8		96.0	74.0	22.0	21.0			27.0	0.03	0.0	36	22.0	14.0			6.3
Dec. 11	Dec. 12	10.5	86.0	72.0	14.0	18.0			20.0	0.15	2.0	47	19.0	28.0	1,700,000		4.6
Dec. 13	Dec. 14	9.0	54.0	40.0	14.0	19.0			19.0	0.18	5.0	40	27.0	13.0	1,900,000		6.7
Dec. 15	Dec. 16	9.0	60.0	44.0	16.0	20.0			16.0	0.33	6.0	51	38.0	13.0			5.3
Dec. 20	Dec. 21	9.0	54.0	47.0	7.0	20.0	17.0	3.0	18.0	0.18	2.0	58	48.0	10.0	1,200,000		
Dec. 22	Dec. 23		83.0	52.0	31.0	13.0	12.0	1.0	15.0	0.28	1.5	50	29.0	21.0			
Dec. 26	Dec. 27	12.0	72.0	66.0	6.0	23.0	17.0	6.0	19.0	0.20	0.0	44	24.0	20.0	1,500,000		5.3
Dec. 28	Dec. 29	12.0	74.0	69.0	5.0	15.0	13.0	2.0	20.0	0.15	0.0	31	15.0	19.0	1,900,000		5.4
Jan. 6	Jan. 9	11.0	61.0	46.5	14.5	14.0	11.0	3.0	16.0	0.08	0.8	39	31.0	8.0	1,200,000		4.3
Jan. 9	Jan. 12	10.0	63.0	50.5	12.5	12.0	7.5	4.5	16.0	0.14	1.9	37	26.0	11.0	1,300,000		4.8
Jan. 15	Jan. 18	10.0	67.0	60.5	6.5	19.0	14.0	5.0	17.0	0.23	1.8	51	36.0	15.0	2,200,000		5.1
Jan. 18	Jan. 21	10.0	101.0	84.5	16.5	19.0	15.0	4.0	20.0	0.09	1.3	68	57.0	11.0	1,100,000		5.7

TABLE No. 2—*Concluded.*

Period Covered 1908		Temp. Degrees Cent.	Parts per Million													Bacteria per C. C.	Hours Detention in Tank
			Susp'd Solids			Nitrogen as						Oxygen Consumed					
						Organic											
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.	Free Ammonia	Nitrites	Nitrates	Total	Dissolved	Suspended			
Settled Sewage.																	
Jan. 25	Jan. 27	10.0	60.0	50.0	10.0	17.0	13.0	4.0	14.0	0.15	1.0	31	19.0	12.0	1,100,000	5.1
Jan. 28	Jan. 30	9.2	54.0	46.0	8.0	17.0	15.0	2.0	13.0	0.10	1.0	54	47.0	7.0	1,100,000	6.1
Feb. 2	Feb. 5	8.9	67.5	58.5	9.0	16.0	15.0	1.0	18.0	0.15	1.4	73	63.0	10.0	1,300,000	6.0
Feb. 5	Feb. 8	8.6	52.5	43.0	9.5	18.0	15.0	3.0	17.0	0.10	1.4	66	59.0	7.0	900,000	5.8
Feb. 11	Feb. 14	7.9	63.0	39.5	23.5	15.0	14.0	1.0	13.0	0.12	1.5	53	41.0	12.0	1,400,000	4.3
Feb. 14	Feb. 17	8.8	62.0	48.0	14.0	18.0	15.0	3.0	15.0	0.13	2.0	57	37.0	20.0	900,000	4.8
Feb. 20	Feb. 23	8.5	68.0	55.5	12.5	18.0	14.0	4.0	14.0	0.13	1.5	54	50.0	4.0	800,000	5.8
Feb. 23	Feb. 26	8.7	84.5	60.0	24.5	16.0	13.0	3.0	16.0	0.09	1.8	61	52.0	9.0	600,000	4.4
Feb. 29	Mar. 3	9.3	76.0	71.5	4.5	15.0	13.0	2.0	19.0	0.13	1.4	66	55.0	11.0	1,000,000	5.4
Mar. 3	Mar. 6	9.0	81.0	70.5	10.5	14.0	11.0	3.0	17.0	0.15	1.4	61	49.0	12.0	1,100,000	5.1
Mar. 9	Mar. 12	8.8	73.5	61.5	12.0	16.0	12.0	4.0	18.0	0.12	1.4	64	51.0	13.0	1,100,000	5.1
Mar. 12	Mar. 15	9.0	51.5	50.5	1.0	16.0	12.0	4.0	17.0	0.13	3.0	51	27.0	24.0	700,000	5.6
Mar. 18	Mar. 24	9.6	58.0	50.5	7.5	17.0	15.0	2.0	17.0	0.12	2.0	49	26.0	23.0	1,400,000	5.7
Mar. 27	April 11	11.3	75.5	64.0	11.5	22.0	19.0	3.0	19.0	0.20	1.0	60	38.0	22.0	1,800,000	5.4
April 14	April 29	13.1	104.0	90.0	14.0	16.0	13.0	3.0	22.0	0.05	1.0	57	35.0	22.0	500,000	5.4
April 30	May 7	13.3	53.0	41.0	12.0	15.0	13.0	2.0	21.0	0.10	1.0	59	51.0	8.0	1,500,000	5.2
May 25	May 26	17.0	116.0	107.0	9.0	15.0	12.0	3.0	18.0	0.05	0.5	120	72.0	48.0	----------	----------
June 8	June 13	18.7	49.0	41.0	8.0	14.0	13.0	1.0	16.0	0.03	0.5	49	33.0	16.0	1,800,000	7.9
June 15	June 27	19.4	51.0	44.0	7.0	13.0	11.0	2.0	16.0	0.03	1.0	44	38.0	6.0	1,300,000	7.4
June 29	July 11	20.6	63.0	60.0	3.0	10.0	9.0	1.0	15.0	0.03	0.5	37	20.0	17.0	2,100,000	6.5
July 13	July 25	21.7	52.0	52.0	0.0	8.0	6.0	2.0	16.0	0.03	1.0	35	21.0	14.0	2,900,000	5.6
July 27	Aug. 8	21.9	65.0	53.0	12.0	8.0	5.0	3.0	15.0	0.10	1.0	30	15.0	15.0	4,400,000	6.6
Aug. 10	Aug. 22	22.2	59.0	44.0	15.0	8.0	6.0	2.0	17.0	0.05	0.4	33	29.0	4.0	2,900,000	----------
Aug. 24	Sept. 5	20.6	74.0	58.0	16.0	9.0	8.0	1.0	19.0	0.05	1.0	43	23.0	20.0	2,200,000	7.5
Sept. 7	Sept. 19	19.7	68.0	58.0	10.0	12.0	9.0	3.0	21.0	0.05	0.2	40	26.0	14.0	2,500,000	7.6
Sept. 21	Oct. 3	19.5	42.0	35.0	7.0	19.0	17.0	2.0	20.0	0.00	0.0	41	34.0	7.0	2,300,000	6.0
Oct. 5	Oct. 17	17.7	51.0	41.0	10.0	8.0	5.0	3.0	25.0	0.05	1.0	45	32.0	13.0	4,100,000	6.7

TABLE No. 3.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed	Bacteria per C. C.	
						Organic			Free Ammonia	Nitrites	Nitrates			
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						
Effluent From Six-foot Sprinkling Filter ½" to 1¼" Stone.														
Aug. 1	Aug. 2													1.5
Aug. 3	Aug. 4		26.0	17.0	9.0	19.0	17.0	2.0	13.0	1.00	4.0	8.0		1.5
Aug. 5	Aug. 6		32.5	7.5	25.0	7.0	7.0	0.0	11.0	1.40	5.0	18.0	420,000	1.5
Aug. 9	Aug. 10		17.2	6.4	10.8	17.0	14.0	3.0	7.0	1.50	15.0	15.0	740,000	2.0
Aug. 11	Aug. 12		38.8	22.0	16.8		15.0		7.0	1.50	15.0	11.0	160,000	1.7
Aug. 13	Aug. 14		53.0	23.0	30.0	9.0	8.0	1.0	7.0	2.75	15.0	17.0	250,000	1.8
Aug. 19	Aug. 20	20.5	12.4	7.2	5.2	14.0	12.0	2.0	6.0	2.75	15.0	16.0	110,000	1.9
Aug. 21	Aug. 22	21.5	28.8	13.6	15.2	5.0	2.0	3.0	10.0	3.00	25.0	16.0	100,000	1.8
Aug. 23	Aug. 24	19.5	28.0	18.0	10.0	13.0	11.0	2.0	5.5	1.70	25.0	13.0	180,000	2.3
Aug. 27	Aug. 28	20.0	24.4	14.4	10.0	3.0	1.0	2.0	10.0	1.40	20.0	14.0	260,000	1.6
Aug. 29	Aug. 30	20.5	18.4	10.4	8.0	12.0	10.0	2.0	8.0	1.80	15.0	12.0	100,000	1.8
Aug. 31	Sept. 1	20.0	14.4	10.4	4.0	9.0	7.0	2.0	10.0	1.50	16.0	17.0		2.6
Sept. 4	Sept. 5	22.5	60.0	39.0	21.0	10.0	9.0	1.0	11.0	1.40	10.0	23.0		2.8
Sept. 6	Sept. 7	20.5	18.8	17.6	1.2	7.0	7.0	0.0	11.0	1.30	10.0	17.0		3.1
Sept. 8	Sept. 9	22.0	52.0	30.8	21.2	7.0	7.0	0.0	13.0	0.90	10.0	20.0		3.1
Sept. 14	Sept. 15		24.0	12.0	12.0	10.0	10.0	0.0	13.0	1.70	10.0	14.0		3.4
Sept. 16	Sept. 17	22.5	22.0	13.2	8.8	8.0	6.0	2.0	14.0	0.80	8.0	21.0		3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	15.5	78.0	56.0	22.0	15.0			18.0	0.10	0.0	30.0		3.0
Oct. 24	Oct. 25	15.0	10.0	8.0	2.0	19.0			21.0	0.40	0.0	13.0	180,000	
Oct. 26	Oct. 27		10.0	10.0	0.0	13.0			23.0	0.10	3.0	13.0		4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	14.0	76.0	40.0	36.0	15.0			17.0	1.00	10.0	19.0	200,000	2.3
Nov. 23	Nov. 24		42.0	34.0	8.0	8.0			12.0	0.90	10.0	11.0	160,000	4.0
Nov. 25	Nov. 26	12.5	36.0	22.0	14.0	11.0			12.0	0.80	10.0	19.0	140,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	9.0	94.0	54.0	40.0	11.0			19.0	0.40	10.0	26.0	90,000	2.7
Dec. 5	Dec. 6	9.5	52.0	26.0	26.0	12.0			16.0	0.40	10.0	15.0	150,000	2.6
Dec. 7	Dec. 8		36.0	26.0	10.0	9.0			15.0	0.50	15.0	14.0		2.8
Dec. 20	Dec. 21	9.0	38.0	22.0	16.0	9.0	8.0	1.0	13.0	0.40	15.0	17.0	240,000	
Dec. 22	Dec. 23		68.0	34.0	34.0	9.0	7.0	2.0	12.0	0.40	10.0	23.0		
Dec. 26	Dec. 27	10.5	46.0	31.0	15.0	10.0	7.0	3.0	14.0	1.00	8.0	21.0	240,000	3.4
Dec. 28	Dec. 29	11.0	60.0	34.0	26.0	13.0	11.0	2.0	13.0	0.20	8.0	23.0		2.8
Jan. 7	Jan. 9	8.7	71.0	45.0	26.0	10.0	6.0	4.0	12.0	0.80	7.0	22.0	160,000	4.6
Jan. 10	Jan. 12	9.0	50.0	41.0	9.0	7.0	6.0	1.0	11.0	0.40	8.0	22.0	110,000	3.9
Jan. 15	Jan. 17	9.0	36.0	34.0	2.0	8.0	7.0	1.0	12.0	1.30	9.0	21.0	530,000	3.5
Jan. 18	Jan. 20	9.0	34.0	25.0	9.0	6.0	4.0	2.0	16.0	0.05	9.0	26.0	710,000	3.2
Jan. 25	Jan. 27	4.3	50.0	44.0	6.0	8.0	4.0	4.0	14.0	0.50	7.0	17.0	180,000	3.8
Jan. 28	Jan. 30	5.7	52.0	34.0	18.0	8.0	7.0	1.0	14.0	0.20	10.0	24.0	130,000	3.0
Feb. 2	Feb. 4	6.0	60.0	46.0	14.0	7.0	6.0	1.0	13.0	0.10	10.0	35.0	710,000	3.8
Feb. 5	Feb. 7	5.8	30.0	26.0	4.0	9.0	7.0	2.0	15.0	0.20	12.0	27.0	1,400,000	3.2
Feb. 11	Feb. 13	7.3	68.0	46.0	22.0	12.0	7.0	5.0	11.0	0.30	10.0	25.0	180,000	4.1
Feb. 14	Feb. 16	8.8	60.0	40.0	20.0	11.0	9.0	2.0	11.0	0.05	10.0	21.0	170,000	4.3
Feb. 20	Feb. 22	7.3	64.0	48.0	16.0	10.0	8.0	2.0	12.0	0.20	10.0	23.0	280,000	3.1
Feb. 23	Feb. 25	7.8	40.0	36.0	4.0	7.0	6.0	1.0	15.0	0.10	10.0	27.0		3.3
Mar. 1	Mar. 3	8.0	28.0	22.0	6.0	12.0	9.0	3.0	10.0	0.10	10.0	21.0	110,000	3.3
Mar. 4	Mar. 6	7.5	27.0	23.0	4.0	6.0	5.0	1.0	11.0	0.10	10.0	20.0	220,000	3.7
Mar. 9	Mar. 11	7.8	47.0	33.0	14.0	10.0	7.0	3.0	12.0	0.20	12.0	23.0	450,000	3.5
Mar. 12	Mar. 14	9.0	56.0	46.0	10.0	9.0	8.0	1.0	12.0	0.10	20.0	21.0	850,000	3.3
Mar. 19	Mar. 24	9.5	48.0	37.0	11.0	8.0	6.0	2.0	15.0	0.60	15.0	20.0	220,000	3.1
Mar. 27	April 11	11.4	36.0	26.0	10.0	10.0	8.0	2.0	14.0	0.05	12.0	19.0	590,000	3.6
April 14	April 29	13.0	70.0	47.0	23.0	12.0	10.0	2.0	15.0	0.10	7.0	28.0	380,000	5.3
April 30	May 7	13.9	63.0	47.0	16.0	14.0	10.0	4.0	16.0	0.10	10.0	33.0	460,000	5.3

TABLE No. 4.

Period Covered 1907-8 From	To	Temp. Degrees Cent.	Parts per Million: Susp'd Solids: Total	Susp'd Solids: Loss on Ignition	Susp'd Solids: Fixed	Nitrogen as: Organic: Total	Nitrogen as: Organic: Dissol'd	Nitrogen as: Organic: Susp.	Nitrogen as: Free Ammonia	Nitrogen as: Nitrites	Nitrogen as: Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
Settled Effluent From Six-foot Sprinkling Filter ½" to 1½" Stone.														
Aug. 1	Aug. 2													1.5
Aug. 3	Aug. 4					21.0	19.0	2.0	12.0			6.0		1.5
Aug. 5	Aug. 6		13.6	2.8	10.8	9.0	7.0	2.0				18.0	530,000	1.5
Aug. 9	Aug. 10		9.4	3.4	6.0	16.0	15.0	1.0	7.0	1.60	15.0	17.0	300,000	2.0
Aug. 11	Aug. 12		2.0	2.0	0.0	5.0	5.0	0.0	8.0	1.50	15.0	10.0	200,000	1.7
Aug. 13	Aug. 14		4.0	2.8	1.2	7.5	7.5	0.0	7.5	2.75	15.0	11.0	240,000	1.8
Aug. 19	Aug. 20	20.5	5.2	4.4	0.8	14.0	14.0	0.0	5.0	2.70	15.0	14.0	110,000	1.9
Aug. 21	Aug. 22	21.5	10.0	5.6	4.4	4.5	4.5	0.0	9.5	3.25	25.0	12.0	130,000	1.8
Aug. 23	Aug. 24	19.5	9.2	7.2	2.0	8.0	7.0	1.0	9.0	1.80	20.0	12.0	90,000	2.3
Aug. 27	Aug. 28	20.0	14.4	7.2	7.2	3.0	2.0	1.0	11.0	1.50	15.0	15.0	200,000	1.6
Aug. 29	Aug. 30	20.5	6.8	5.6	1.2	12.0	8.5	3.5	8.5	1.80	15.0	13.0	120,000	1.8
Aug. 31	Sept. 1	20.0	8.4	5.6	2.8	9.0	7.0	2.0	11.0	1.75	16.0	16.0		2.6
Sept. 4	Sept. 5	22.5	20.0	16.0	4.0	8.0	7.0	1.0	11.0	1.20	10.0	22.0		2.8
Sept. 6	Sept. 7	20.5	13.2	12.4	0.8	9.0	7.0	2.0	11.0	1.40	10.0	15.0		3.1
Sept. 8	Sept. 9	22.0	17.2	12.4	4.8	7.0	7.0	0.0	14.0	1.10	10.0	19.0		3.1
Sept. 14	Sept. 15		13.6	7.2	6.4	10.0	10.0	0.0	14.0	1.80	8.0	13.0		3.4
Sept. 16	Sept. 17	22.5	12.8	8.4	4.4	10.0	10.0	0.0	14.0	0.70	8.0	18.0		3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	15.5	74.0	60.0	14.0	13.0			21.0	0.10	8.0	30.0		3.0
Oct. 24	Oct. 25	15.0	9.0	9.0	0.0	18.0			21.0	0.10	0.0	16.0	180,000	
Oct. 26	Oct. 27		4.0	4.0	0.0	9.0			23.0	0.20	2.0	12.0		4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	14.0	34.0	18.0	16.0	13.0			17.0	1.00	9.0	13.0	180,000	2.3
Nov. 23	Nov. 24		26.0	20.0	6.0	7.0			12.0	0.90	10.0	10.0	140,000	4.0
Nov. 25	Nov. 26	12.5	20.0	16.0	4.0	10.0			11.0	1.20	10.0	13.0	130,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	9.0	44.0	26.0	18.0	9.0			19.0	0.40	10.0	20.0	90,000	2.7
Dec. 5	Dec. 6	9.5	30.0	14.0	16.0	9.0			16.0	0.40	9.0	18.0	160,000	2.6
Dec. 7	Dec. 8		18.0	16.0	2.0	9.0			15.0	0.20	15.0	11.0		2.8
Dec. 20	Dec. 21	9.0	21.0	14.0	7.0	9.0	8.0	1.0	13.0	0.40	12.0	15.0	90,000	
Dec. 22	Dec. 23		56.0	49.0	7.0	11.0	5.0	6.0	12.0	0.00	10.0	19.0		
Dec. 26	Dec. 27	10.5	19.0	12.0	7.0	9.0	7.0	2.0	14.0	0.60	7.0	16.0	190,000	3.4
Dec. 28	Dec. 29	11.0	32.0	19.0	13.0	13.0	12.0	1.0	13.0	0.20	7.0	20.0	180,000	2.8
Jan. 7	Jan. 9	8.7	43.0	25.0	18.0	8.0	6.0	2.0	12.0	0.70	7.0	15.0	110,000	4.6
Jan. 10	Jan. 12	9.0	42.0	28.0	14.0	6.0	4.0	2.0	11.0	0.50	8.0	16.0	60,000	3.9
Jan. 15	Jan. 17	9.0	22.0	21.0	1.0	7.0	2.0	5.0	14.0	1.30	9.0	20.0	90,000	3.5
Jan. 18	Jan. 20	9.0	34.0	23.0	11.0	7.0	6.0	1.0	15.0	0.05	8.0	24.0	100,000	3.2
Jan. 25	Jan. 27	4.3	40.0	32.0	8.0	7.0	3.0	4.0	15.0	0.10	7.0	14.0	200,000	3.8
Jan. 28	Jan. 30	5.7	64.0	44.0	20.0	9.0	6.0	3.0	13.0	0.50	10.0	21.0	100,000	3.0
Feb. 2	Feb. 4	6.0	38.0	28.0	10.0	6.0	5.0	1.0	14.0	0.10	10.0	30.0	580,000	3.8
Feb. 5	Feb. 7	5.8	24.0	20.0	4.0	10.0	8.0	2.0	14.0	0.20	12.0	26.0	250,000	3.2
Feb. 11	Feb. 13	7.3	38.0	24.0	14.0	10.0	9.0	1.0	12.0	0.30	10.0	19.0	120,000	4.1
Feb. 14	Feb. 16	8.8	26.0	20.0	6.0	10.0	10.0	0.0	11.0	0.05	8.0	18.0	90,000	4.3
Feb. 20	Feb. 22	7.3	32.0	24.0	8.0	8.0	7.0	1.0	13.0	0.40	10.0	20.0	90,000	3.1
Feb. 23	Feb. 25	7.8	26.0	24.0	2.0	7.0	6.0	1.0	15.0	0.10	8.0	25.0	160,000	3.3
Mar. 1	Mar. 3	8.0	20.0	15.0	5.0	12.0	11.0	1.0	10.0	0.10	10.0	19.0	110,000	3.3
Mar. 4	Mar. 6	7.5	20.0	15.0	5.0	5.0	4.0	1.0	12.0	0.10	10.0	18.0	160,000	3.7
Mar. 9	Mar. 11	7.8	22.5	15.0	7.5	11.0	10.0	1.0	11.0	0.20	10.0	20.0	120,000	3.5
Mar. 12	Mar. 14	9.0	21.0	16.5	4.5	9.0	8.0	1.0	12.0	0.10	15.0	18.0	110,000	3.3
Mar. 19	Mar. 24	9.5	25.0	16.0	9.0	7.0	6.0	1.0	15.0	0.30	10.0	19.0	120,000	3.1
Mar. 27	April 11	11.4	14.0	10.0	4.0	9.0	8.0	1.0	14.0	0.20	12.0	16.0	130,000	3.6
April 14	April 29	13.0	31.0	20.0	11.0	12.0	12.0	0.0	15.0	0.10	7.0	22.0	210,000	5.3
April 30	May 7	13.9	37.0	30.0	7.0	12.0	10.0	2.0	16.0	0.10	10.0	28.0	180,000	5.3

TABLE No. 5.

Period Covered 1907-8 From	To	Temp. Degrees Cent.	Parts per Million: Susp'd Solids: Total	Susp'd Solids: Loss on Ignition	Susp'd Solids: Fixed	Nitrogen as: Organic: Total	Nitrogen as: Organic: Dissol'd	Nitrogen as: Organic: Susp.	Nitrogen as: Free Ammonia	Nitrogen as: Nitrites	Nitrogen as: Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
Effluent From Nine-foot Sprinkling Filter ½" to 1½" Stone.														
Aug. 1	Aug. 2		65.0	30.0	35.0	7.5	3.5	4.0	13.0	0.50	5.0	12.0		1.5
Aug. 3	Aug. 4		4.0	4.0	0.0	26.0	19.0	7.0	9.5	0.80	6.0	7.0		1.5
Aug. 5	Aug. 6		4.6	0.0	4.6	7.5	6.5	1.0	8.5	1.60	8.0	13.0	220,000	1.5
Aug. 9	Aug. 10		11.6	3.8	7.8	2.5	0.5	2.0	4.5	1.15	15.0	14.0	250,000	2.0
Aug. 11	Aug. 12		16.8	8.8	8.0	13.0	12.0	1.0	8.5	1.00	15.0	6.0	190,000	1.7
Aug. 13	Aug. 14		45.5	12.0	33.5	6.5	5.5	1.0	6.5	2.00	15.0	12.0	120,000	1.8
Aug. 19	Aug. 20	21.0	6.4	5.2	1.2	9.0	9.0	0.0	5.0	1.50	15.0	11.0	90,000	1.9
Aug. 21	Aug. 22	21.5	17.6	9.6	8.0	4.5	4.5	0.0	6.5	2.25	20.0	18.0	110,000	1.8
Aug. 23	Aug. 24	19.5	14.0	13.6	0.4	13.0	12.0	1.0	3.5	1.00	20.0	9.0	130,000	2.3
Aug. 27	Aug. 28	20.0	14.4	8.8	5.6	4.5	4.5	0.0	4.5	1.10	20.0	10.0	160,000	1.6
Aug. 29	Aug. 30	20.0	7.2	4.0	3.2	9.0	9.0	0.0	4.0	1.20	15.0	10.0	120,000	1.8
Aug. 31	Sept. 1	20.0	8.0	7.2	0.8	9.0	6.0	3.0	6.0	1.10	15.0	13.0		2.6
Sept. 4	Sept. 5	22.5	40.0	30.0	10.0	7.0	6.0	1.0	7.0	1.20	20.0	17.0		2.8
Sept. 6	Sept. 7	20.5	10.4	9.6	0.8	9.0	8.0	1.0	7.0	1.20	15.0	11.0		3.1
Sept. 8	Sept. 9	21.0	33.6	19.2	14.4	7.0	6.0	1.0	13.0	1.00	10.0	15.0		3.1
Sept. 14	Sept. 15		31.6	12.0	19.6	11.0	11.0	0.0	9.5	1.90	15.0	11.0		3.4
Sept. 16	Sept. 17	22.0	22.0	10.8	11.2	9.0	9.0	0.0	11.0	0.90	10.0	13.0		3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	14.5	94.0	52.0	42.0	15.0			18.0	1.60	6.0	24.0		3.0
Oct. 24	Oct. 25	15.0				12.0			20.0	0.10	1.0	12.0	190,000	
Oct. 26	Oct. 27		5.0	3.0	2.0	13.0			21.0	0.50	4.0	10.0		4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	13.0	76.0	36.0	40.0	13.0			15.0	1.30	15.0	14.0	180,000	2.3
Nov. 23	Nov. 24		70.0	36.0	34.0	6.0			11.0	0.60	15.0	13.0	50,000	4.0
Nov. 25	Nov. 26	12.0	54.0	34.0	20.0	11.0			9.5	0.60	15.0	13.0	90,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	9.0	110.0	62.0	48.0	11.0			18.0	0.90	20.0	21.0	90,000	2.7
Dec. 5	Dec. 6	8.5	100.0	48.0	52.0	17.0			13.0	0.60	20.0	21.0	120,000	2.6
Dec. 7	Dec. 8		98.0	48.0	50.0	11.0			11.0	0.60	20.0	12.0		2.8
Dec. 20	Dec. 21	9.0	26.0	14.0	12.0	12.0	10.0	2.0	11.0	0.40	14.0	14.0	80,000	
Dec. 22	Dec. 23		65.0	32.0	33.0	9.5	7.5	2.0	8.5	0.40	12.0	13.0		
Dec. 26	Dec. 27	10.5	32.0	19.0	13.0	8.0	7.0	1.0	12.0	0.60	15.0	13.0	150,000	3.4
Dec. 28	Dec. 29	11.0	33.0	19.0	14.0	13.0	12.0	1.0	10.0	0.20	15.0	12.0	140,000	2.8
Jan. 7	Jan. 9	7.7	47.0	28.0	18.0	13.0	6.5	6.5	8.5	0.60	10.0	11.0	100,000	4.6
Jan. 10	Jan. 12	8.0	53.0	42.0	11.0	8.0	4.0	4.0	9.0	0.50	10.0	10.0	240,000	3.9
Jan. 15	Jan. 17	9.0	58.0	46.0	12.0	11.0	7.0	4.0	9.0	1.30	12.0	16.0	120,000	3.5
Jan. 18	Jan. 20	9.0	61.0	40.0	21.0	8.0	6.0	2.0	13.0	0.05	12.0	22.0	260,000	3.2
Jan. 25	Jan. 27	4.0	80.0	52.0	28.0	9.0	4.0	5.0	11.0	0.40	12.0	15.0	190,000	3.8
Jan. 28	Jan. 30	5.5	58.0	39.0	19.0	8.0	5.0	3.0	9.0	0.70	15.0	16.0	100,000	3.0
Feb. 2	Feb. 4	5.5	43.0	31.0	12.0	5.5	4.5	1.0	8.5	0.20	15.0	23.0	230,000	3.8
Feb. 5	Feb. 7	5.5	43.0	32.0	11.0	7.0	5.0	2.0	12.0	0.20	18.0	21.0	70,000	3.2
Feb. 11	Feb. 13	7.0	44.0	26.0	18.0	12.0	9.5	2.5	7.5	0.30	12.0	15.0	120,000	4.7
Feb. 14	Feb. 16	8.5	28.0	22.0	6.0	11.0	9.0	2.0	10.0	0.05	10.0	20.0	130,000	4.3
Feb. 20	Feb. 22	7.0	44.0	32.0	12.0	10.0	9.0	1.0	6.0	0.10	12.0	16.0	70,000	3.7
Feb. 23	Feb. 25	7.5	30.0	22.0	8.0	9.0	6.0	3.0	11.0	0.10	12.0	18.0	80,000	3.3
Mar. 1	Mar. 3	8.0	17.0	10.5	6.5	10.0	7.0	3.0	8.0	0.05	15.0	14.0	80,000	3.3
Mar. 4	Mar. 6	7.5	30.0	23.0	7.0	6.5	4.5	2.0	6.5	0.05	12.0	16.0	90,000	3.7
Mar. 9	Mar. 11	8.3	36.0	22.0	14.0	15.0	8.0	7.0	7.0	0.20	15.0	17.0	130,000	3.5
Mar. 12	Mar. 14	9.2	40.0	34.0	6.0	8.0	7.0	1.0	7.0	0.30	25.0	17.0	200,000	3.3
Mar. 19	Mar. 24	9.7	58.0	41.0	17.0	8.5	7.5	1.0	8.5	0.40	20.0	18.0	140,000	3.1
Mar. 27	April 11	11.5	43.0	27.0	16.0	9.0	8.0	1.0	9.0	0.05	22.0	17.0	170,000	3.6
April 14	April 29	13.1	56.0	33.0	23.0	5.0	5.0	0.0	16.0	0.10	18.0	20.0	160,000	5.3
April 30	May 7	13.6	47.0	34.0	13.0	10.0	7.0	3.0	10.0	0.10	20.0	23.0	200,000	5.3

TABLE No. 6.

Period Covered 1907-8 From	To	Temp. Degrees Cent.	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp.	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
Settled Effluent From Nine-foot Sprinkling Filter ½" to 1½" Stone.														
Aug. 1	Aug. 2		52.0	21.0	31.0	3.5	3.5	0.0	13.0			11.0		1.5
Aug. 3	Aug. 4					16.0	16.0	0.0	9.5			6.0		1.5
Aug. 5	Aug. 6		8.0	0.4	7.6	7.5	7.5	0.0				16.0	250,000	1.5
Aug. 9	Aug. 10		14.0	2.8	11.2	17.0	16.0	1.0	4.0	1.25	15.0	17.0	420,000	2.0
Aug. 11	Aug. 12		13.2	11.6	1.6	13.0	12.0	1.0	9.5	1.00	15.0	9.0	140,000	1.7
Aug. 13	Aug. 14		8.4	5.6	2.8	4.5	4.5	0.0	6.5	2.00	20.0	11.0	160,000	1.8
Aug. 19	Aug. 20	21.0	3.6	3.2	0.4	8.5	8.5	0.0	5.5	1.65	20.0	13.0	100,000	1.9
Aug. 21	Aug. 22	21.5	8.0	4.0	4.0	7.0	6.0	1.0	4.0	3.00	20.0	10.0	100,000	1.8
Aug. 23	Aug. 24	19.5	7.6	7.6	0.0	12.0	12.0	0.0	4.0	1.10	25.0	10.0	70,000	2.3
Aug. 27	Aug. 28	20.0	8.0	4.8	3.2	7.0	5.0	2.0	5.0	1.20	25.0	11.0	60,000	1.6
Aug. 29	Aug. 30	20.0	9.2	5.2	4.0	12.0	8.5	3.5	4.5	1.30	20.0	13.0	80,000	1.8
Aug. 31	Sept. 1	20.0	7.6	6.0	1.6	7.0	5.0	2.0	7.0	1.35	15.0	13.0		2.6
Sept. 4	Sept. 5	22.5	15.0	13.0	2.0	6.0	5.0	1.0	7.0	1.50	20.0	17.0		2.8
Sept. 6	Sept. 7	20.5	10.4	10.0	0.4	10.0	9.0	1.0	9.0	1.50	15.0	11.0		3.1
Sept. 8	Sept. 9	21.0	21.6	16.8	4.8	9.0	9.0	0.0	13.0	0.80	15.0	17.0		3.1
Sept. 14	Sept. 15		24.4	8.8	15.6	8.0	8.0	0.0	11.0	1.80	15.0	11.0		3.4
Sept. 16	Sept. 17	22.0	16.4	8.8	7.6	9.0	8.0	1.0	12.0	0.70	10.0	15.0		3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	14.5	74.0	50.0	24.0	14.0			19.0	1.80	3.0	26.0		3.0
Oct. 24	Oct. 25	15.0				13.0			20.0	0.10	1.0	12.0	160,000	
Oct. 26	Oct. 27		4.0	3.0	1.0	11.0			23.0	0.30	4.0	10.0		4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	13.0	52.0	24.0	28.0	11.0			16.0	1.00	15.0	12.0	190,000	2.3
Nov. 23	Nov. 24		38.0	24.0	14.0	5.0			11.0	0.60	15.0	9.0	40,000	4.0
Nov. 25	Nov. 26	12.0	32.0	20.0	12.0	11.0			10.0	0.40	15.0	14.0	60,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	9.0	54.0	34.0	20.0	8.0			18.0	0.40	25.0	23.0	90,000	2.7
Dec. 5	Dec. 6	8.5	40.0	16.0	24.0	12.0			13.0	0.50	15.0	13.0	130,000	2.6
Dec. 7	Dec. 8		40.0	20.0	20.0	9.0			12.0	0.70	20.0	10.0		2.8
Dec. 20	Dec. 21	9.0	16.0	8.0	8.0	12.0	11.0	1.0	11.0	0.40	18.0	12.0	60,000	
Dec. 22	Dec. 23		40.0	18.0	22.0	7.5	1.5	6.0	8.5	0.40	15.0	12.0		
Dec. 26	Dec. 27	10.5	20.0	16.0	4.0	9.0	8.0	1.0	12.0	0.60	12.0	15.0	90,000	3.4
Dec. 28	Dec. 29	11.0	24.0	14.0	10.0	12.0	10.0	2.0	11.0	0.20	15.0	14.0	130,000	2.8
Jan. 7	Jan. 9	7.7	32.0	21.0	11.0	12.0	6.0	6.0	9.0	0.40	10.0	11.0	90,000	4.6
Jan. 10	Jan. 12	8.0	43.0	30.0	13.0	7.0	5.0	2.0	10.0	0.50	10.0	11.0	10,000	3.9
Jan. 15	Jan. 17	9.0	27.0	26.0	1.0	6.0	2.0	4.0	11.0	1.10	12.0	16.0	70,000	3.5
Jan. 18	Jan. 20	9.0	48.0	30.0	18.0	7.0	6.0	1.0	13.0	0.05	12.0	21.0	90,000	3.2
Jan. 25	Jan. 27	4.0	42.0	30.0	12.0	7.0	4.0	3.0	11.0	0.30	12.0	11.0	100,000	3.8
Jan. 28	Jan. 30	5.5	40.0	28.0	12.0	7.0	5.0	2.0	9.0	0.60	15.0	15.0	100,000	3.0
Feb. 2	Feb. 4	5.5	46.0	34.0	12.0	6.0	4.0	2.0	10.0	0.10	15.0	16.0	300,000	3.8
Feb. 5	Feb. 7	5.5	22.0	16.0	6.0	8.0	7.0	1.0	11.0	0.20	18.0	21.0	50,000	3.2
Feb. 11	Feb. 13	7.0	40.0	26.0	14.0	12.0	8.5	3.5	7.5	0.30	12.0	16.0	110,000	4.7
Feb. 14	Feb. 16	8.5	22.0	20.0	2.0	10.0	7.0	3.0	11.0	0.05	10.0	18.0	100,000	4.3
Feb. 20	Feb. 22	7.7	19.0	14.0	5.0	7.0	6.0	1.0	8.0	0.10	12.0	16.0	70,000	3.7
Feb. 23	Feb. 25	7.5	30.0	22.0	8.0	7.0	5.0	2.0	11.0	0.10	15.0	19.0	20,000	3.3
Mar. 1	Mar. 3	8.0	24.0	16.5	7.5	8.0	7.0	1.0	8.0	0.05	15.0	18.0	100,000	3.3
Mar. 4	Mar. 6	7.5	22.5	18.5	4.0	5.5	4.5	1.0	6.5	0.05	12.0	15.0	60,000	3.7
Mar. 9	Mar. 11	8.3	33.5	20.5	13.0	10.0	8.0	2.0	7.0	0.20	18.0	17.0	90,000	3.5
Mar. 12	Mar. 14	9.2	27.5	22.0	5.5	7.5	6.5	1.0	7.5	0.20	25.0	16.0	90,000	3.3
Mar. 19	Mar. 24	9.7	28.0	20.0	8.0	7.5	6.5	1.0	8.5	0.30	20.0	14.0	180,000	3.1
Mar. 27	April 11	11.5	20.0	11.0	9.0	9.0	8.0	1.0	9.0	0.10	22.0	15.0	120,000	3.6
April 14	April 29	13.1	42.0	22.0	20.0	11.0	9.0	2.0	11.0	0.20	18.0	19.0	140,000	5.3
April 30	May 7	13.6	30.0	24.0	6.0	10.0	8.0	2.0	10.0	0.10	20.0	21.0	150,000	5.3

TABLE No. 7.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed	Bacteria per C. C.	
						Organic			Free Ammonia	Nitrites	Nitrates			
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						
Effluent From Twelve-foot Sprinkling Filter ½" to 1½" Stone.														
Aug. 1	Aug. 2		46.0	18.0	28.0	4.0	4.0	0.0	10.0	0.90	5.0	6.0		1.5
Aug. 3	Aug. 4		10.0	10.0	0.0	17.0	15.0	2.0	10.0	1.40	6.0	7.0		1.5
Aug. 5	Aug. 6		1.5	0.5	1.0	8.5	7.5	1.0	5.5	1.80	10.0	18.0	250,000	1.5
Aug. 9	Aug. 10		9.6	3.0	6.6	15.0	15.0	0.0	3.0	1.00	15.0	11.0	310,000	2.0
Aug. 11	Aug. 12		7.6	6.8	0.8	9.0	8.0	1.0	7.0	1.75	15.0	7.0	150,000	1.7
Aug. 13	Aug. 14		10.0	3.2	6.8	5.5	5.5	0.0	3.5	1.75	20.0	8.0	130,000	1.8
Aug. 19	Aug. 20	20.5	3.2	2.8	0.4	15.0	15.0	0.0	3.5	1.50	20.0	11.0	60,000	1.9
Aug. 21	Aug. 22	21.0	9.2	4.4	4.8	2.5	2.5	0.0	4.5	2.25	30.0	10.0	70,000	1.8
Aug. 23	Aug. 24	19.5	8.4	6.8	1.6	10.0	9.0	1.0	3.0	1.20	25.0	9.0	90,000	2.3
Aug. 27	Aug. 28	20.0	7.6	5.6	2.0	7.0	6.0	1.0	3.0	1.00	30.0	10.0	200,000	1.6
Aug. 29	Aug. 30	20.0	4.0	2.8	1.2	13.0	11.0	2.0	2.0	0.80	20.0	9.0	80,000	1.8
Aug. 31	Sept. 1	20.0	10.8	7.6	3.2	8.5	6.5	2.0	3.5	0.90	17.0	12.0		2.6
Sept. 4	Sept. 5	22.5	33.0	20.0	13.0	6.0	6.0	0.0	4.0	1.40	20.0	14.0		2.8
Sept. 6	Sept. 7	20.5	11.2	8.0	3.2	6.5	5.5	1.0	5.5	1.20	20.0	12.0		3.1
Sept. 8	Sept. 9	21.0	22.4	16.8	5.6	9.5	9.5	0.0	8.5	1.10	20.0	12.0		3.1
Sept. 14	Sept. 15		39.8	9.2	29.6	11.0	11.0	0.0	7.0	1.80	20.0	10.0		3.4
Sept. 16	Sept. 17	21.5	11.6	6.8	4.8	12.0	11.0	1.0	7.5	0.80	15.0	13.0		3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	14.5	106.6	56.0	50.0	13.0			18.0	1.60	0.0	24.0		3.0
Oct. 24	Oct. 25	14.5	15.0	10.0	5.0	9.0			21.0	0.60	1.0	9.0	170,000	
Oct. 26	Oct. 27		5.0	4.0	1.0	8.0			21.0	0.80	9.0	8.0		4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	13.0	106.0	42.0	64.0	14.0			14.0	1.20	15.0	15.0	140,000	2.3
Nov. 23	Nov. 24		76.0	34.0	42.0	7.0			10.0	0.60	15.0	12.0	80,000	4.0
Nov. 25	Nov. 26	12.0	46.0	20.0	26.0	12.0			7.5	0.60	15.0	13.0	80,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	9.0	102.0	52.0	50.0	14.0			16.0	0.40	15.0	23.0	90,000	2.7
Dec. 5	Dec. 6	8.5	82.0	32.0	50.0	13.0			11.0	0.60	20.0	16.0	120,000	2.6
Dec. 7	Dec. 8		88.0	36.0	52.0	10.0			10.0	0.80	20.0	13.0		2.8
Dec. 20	Dec. 21	9.0	27.0	14.0	13.0	10.0	9.0	1.0	8.0	0.40	22.0	14.0	70,000	
Dec. 22	Dec. 23		75.0	37.0	38.0	6.0	4.0	2.0	7.0	0.30	12.0	12.0		
Dec. 26	Dec. 27	10.0	33.0	19.0	14.0	10.0	9.0	1.0	9.0	0.60	25.0	11.0	210,000	3.4
Dec. 28	Dec. 29	10.8	34.0	20.0	14.0	8.5	7.5	1.0	8.5	0.40	18.0	11.0	160,000	2.8
Jan. 7	Jan. 9	7.7	45.0	26.0	19.0	8.5	5.5	3.0	8.5	0.60	15.0	15.0	110,000	4.6
Jan. 10	Jan. 12	7.0	58.0	36.0	22.0	6.5	4.5	2.0	7.5	0.30	12.0	12.0	40,000	3.9
Jan. 15	Jan. 17	8.5	61.0	46.0	15.0	8.5	7.5	1.0	6.5	1.20	15.0	16.0	110,000	3.5
Jan. 18	Jan. 20	9.0	68.0	40.0	28.0	11.0	5.0	6.0	8.0	0.10	20.0	19.0	100,000	3.2
Jan. 25	Jan. 27	4.2	43.0	26.0	17.0	7.5	6.5	1.0	8.5	0.10	15.0	14.0	150,000	3.8
Jan. 28	Jan. 30	7.0	60.0	38.0	22.0	7.5	6.5	1.0	5.5	0.60	20.0	15.0	110,000	3.0
Feb. 2	Feb. 4	5.5	40.0	26.0	14.0	5.5	5.5	0.0	7.5	0.20	15.0	20.0	170,000	3.8
Feb. 5	Feb. 7	5.3	34.0	24.0	10.0	8.0	7.0	1.0	7.0	0.20	20.0	19.0	50,000	3.2
Feb. 11	Feb. 13	7.0	38.0	22.0	16.0	8.5	8.5	0.0	6.5	0.20	15.0	14.0	100,000	4.1
Feb. 14	Feb. 16	8.5	36.0	18.0	18.0	9.0	7.0	2.0	6.0	0.00	15.0	11.0	50,000	4.3
Feb. 20	Feb. 22	7.0	44.0	38.0	6.0	9.5	6.5	3.0	5.5	0.10	20.0	16.0	30,000	3.1
Feb. 23	Feb. 25	7.3	34.0	20.0	14.0	7.0	6.0	1.0	8.0	0.05	18.0	17.0	100,000	3.3
Mar. 1	Mar. 3	7.8	29.0	23.0	6.0	9.0	8.0	1.0	5.0	0.10	18.0	14.0	80,000	3.3
Mar. 4	Mar. 6	7.5	31.0	25.0	6.0	6.0	6.0	0.0	5.0	0.10	15.0	13.0	50,000	3.7
Mar. 9	Mar. 11	8.3	54.0	27.0	27.0	9.5	8.5	1.0	5.5	0.40	20.0	18.0	90,000	3.5
Mar. 12	Mar. 14	9.2	55.0	35.0	20.0	10.0	7.0	3.0	5.0	0.30	20.0	15.0	60,000	3.3
Mar. 19	Mar. 24	9.8	97.0	46.0	51.0	10.0	8.0	2.0	7.0	0.60	20.0	19.0	170,000	3.1
Mar. 27	April 11	11.6	33.0	22.0	11.0	9.5	8.5	1.0	6.5	0.05	22.0	15.0	110,000	3.6
April 14	April 29	13.3	51.0	34.0	17.0	11.0	9.5	1.5	8.5	0.10	20.0	21.0	130,000	5.3
April 30	May 7	13.5	49.0	32.0	17.0	9.5	8.5	1.0	6.5	0.10	20.0	22.0	170,000	5.3

TABLE No. 8.

Period Covered 1907-8 From	To	Temp. Degrees Cent.	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as: Organic Total	Organic Dissol'd	Organic Susp.	Free Ammonia	Nitrites	Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
Settled Effluent From Twelve-foot Sprinkling Filter ½" to 1½" Stone.														
Aug. 1	Aug. 2		30.0	16.0	14.0	9.0	5.0	4.0	11.0			9.0		1.5
Aug. 3	Aug. 4		10.0	10.0	0.0	13.0	9.0	4.0	11.0			6.0		1.5
Aug. 5	Aug. 6		2.8	1.6	1.2	6.5	5.5	1.0				14.0	240,000	1.5
Aug. 9	Aug. 10		13.4	3.6	9.8	13.0	11.0	2.0	4.0	1.10	15.0	12.0	210,000	2.0
Aug. 11	Aug. 12		7.2	6.0	1.2	12.0	8.0	4.0	7.5	0.88	15.0	6.0	170,000	1.7
Aug. 13	Aug. 14		6.0	4.8	1.2	6.0	6.0	0.0	4.0	1.75	15.0	8.0	90,000	1.8
Aug. 19	Aug. 20	20.5	4.8	3.2	1.6	15.0	14.0	1.0	4.5	1.50	20.0	10.0	60,000	1.9
Aug. 21	Aug. 22	21.0	8.8	4.0	4.8	8.0	4.0	4.0	4.0	2.50	20.0	14.0	80,000	1.8
Aug. 23	Aug. 24	19.5	4.4	4.4	0.0	12.0	11.0	1.0	4.0	1.20	25.0	10.0	100,000	2.3
Aug. 27	Aug. 28	20.0	6.0	5.2	0.8	8.0	8.0	0.0	3.0	1.20	30.0	9.0	130,000	1.6
Aug. 29	Aug. 30	20.0	2.8	2.0	0.8	11.0	8.5	2.5	2.5	1.00	20.0	10.0	40,000	1.8
Aug. 31	Sept. 1	20.0	7.6	6.4	1.2	7.5	5.5	2.0	3.5	1.15	18.0	13.0		2.6
Sept. 4	Sept. 5	22.5	8.0	6.4	1.6	6.5	5.5	1.0	3.5	1.50	15.0	14.0		2.8
Sept. 6	Sept. 7	20.5	8.0	7.6	0.4	14.0	8.0	6.0	4.0	1.30	20.0	10.0		3.1
Sept. 8	Sept. 9	21.0	20.8	17.6	3.2	13.0	12.0	1.0	10.0	1.10	20.0	15.0		3.1
Sept. 14	Sept. 15		20.0	9.6	10.4	9.0	9.0	0.0	7.0	2.10	20.0	10.0		3.4
Sept. 16	Sept. 17	21.5	14.4	7.6	6.8	11.0	10.0	1.0	9.0	0.70	15.0	12.0		3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	14.5	71.0	44.0	30.0	13.0			18.0	1.80	10.0	25.0		3.0
Oct. 24	Oct. 25	14.5				9.0			21.0	0.40	1.0	11.0	160,000	
Oct. 26	Oct. 27		6.0	3.0	3.0	10.0			21.0	0.80	8.0	10.0		4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	13.0	38.0	14.0	24.0	14.0			14.0	1.20	15.0	12.0	170,000	2.3
Nov. 23	Nov. 24		56.0	30.0	26.0	6.0			10.0	0.60	20.0	9.0	80,000	4.0
Nov. 25	Nov. 26	12.0	40.0	22.0	18.0	9.5			7.5	1.00	20.0	12.0	60,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	9.0	54.0	34.0	20.0	10.0			16.0	0.50	25.0	19.0	90,000	2.7
Dec. 5	Dec. 6	8.5	46.0	18.0	28.0	11.0			11.0	0.60	20.0	13.0	100,000	2.6
Dec. 7	Dec. 8		44.0	16.0	28.0	10.0			9.0	0.70	30.0	11.0		2.8
Dec. 20	Dec. 21	9.0	18.0	9.0	9.0	14.0	12.0	2.0	8.0	0.40	22.0	13.0	50,000	
Dec. 22	Dec. 23		38.0	15.0	23.0	9.0	7.0	2.0	7.0	0.80	15.0	11.0		
Dec. 26	Dec. 27	10.0	19.0	12.0	7.0	10.0	9.0	1.0	9.0	0.60	20.0	16.0	600	3.4
Dec. 28	Dec. 29	10.8	20.0	15.0	5.0	8.0	6.0	2.0	8.0	0.20	20.0	13.0	250	2.8
Jan. 7	Jan. 9	7.7	30.0	21.0	9.0	9.0	6.0	3.0	8.0	0.60	12.0	13.0	3,000	4.6
Jan. 10	Jan. 12	7.0	40.0	24.0	16.0	7.0	6.0	1.0	7.0	0.40	12.0	11.0	600	3.9
Jan. 15	Jan. 17	8.5	36.0	31.0	5.0	8.5	6.5	2.0	6.5	1.40	15.0	17.0	2,000	3.5
Jan. 18	Jan. 20	9.0	50.0	26.0	24.0	12.0	6.5	5.5	7.5	0.05	18.0	20.0	2,000	3.2
Jan. 25	Jan. 27	4.2	42.0	30.0	12.0	7.5	5.5	2.0	8.5	0.10	15.0	11.0	2,000	3.8
Jan. 28	Jan. 30	7.0	32.0	24.0	8.0	7.5	6.5	1.0	5.5	0.40	20.0	14.0	2,000	3.0
Feb. 2	Feb. 4	5.5	30.0	21.0	9.0	4.5	3.5	1.0	8.5	0.20	15.0	22.0	6,000	3.8
Feb. 5	Feb. 7	5.3	17.0	12.0	5.0	6.5	5.5	1.0	7.5	0.10	20.0	22.0	1,100	3.2
Feb. 11	Feb. 13	7.0	34.0	22.0	12.0	9.5	8.5	1.0	5.5	0.20	15.0	15.0	8,000	4.1
Feb. 14	Feb. 16	8.5	22.0	14.0	8.0	7.5	6.5	1.0	5.5	0.00	15.0	11.0	10,000	4.3
Feb. 20	Feb. 22	7.0	20.0	14.0	6.0	6.0	5.0	1.0	6.0	0.10	20.0	16.0	3,000	3.1
Feb. 23	Feb. 25	7.3	28.0	18.0	10.0	7.0	6.0	1.0	8.0	0.10	18.0	17.0	200	3.3
Mar. 1	Mar. 3	7.8	19.0	14.0	5.0	9.0	8.0	1.0	5.0	0.05	20.0	13.0	880	3.3
Mar. 4	Mar. 6	7.5	23.5	16.5	7.0	6.0	6.0	0.0	5.0	0.10	15.0	13.0	500	3.7
Mar. 9	Mar. 11	8.3	28.0	16.0	12.0	9.5	8.5	1.0	5.5	0.20	20.0	15.0	1,800	3.5
Mar. 12	Mar. 14	9.2	31.0	22.5	8.5	7.0	7.0	0.0	5.0	0.40	25.0	17.0	800	3.3
Mar. 19	Mar. 24	9.8	29.0	18.0	11.0	8.0	6.0	2.0	7.0	0.20	20.0	17.0	1,200	3.1
Mar. 27	April 11	11.6	29.0	19.0	10.0	9.2	8.2	1.0	6.8	0.05	22.0	14.0	1,200	3.6
April 14	April 29	13.3	38.0	20.0	18.0	10.0	7.0	3.0	9.0	0.10	22.0	22.0	1,500	5.3
April 30	May 7	13.5	30.0	21.0	9.0	13.0	9.5	3.5	6.5	0.10	20.0	20.0	1,600	5.3

TABLE No. 9.

Period Covered 1907-8 From	To	Temp. Degrees Cent.	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp.	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
Effluent From Six foot Sprinkling Filter 1″ to 2″ Stone.														
Aug. 1	Aug. 2													1.5
Aug. 3	Aug. 4		15.0	9.0	6.0	5.0	4.0	1.0	13.0	0.50	3.0	9.0		1.5
Aug. 5	Aug. 6		16.0	9.5	6.5	10.0	6.0	4.0	14.0	2.00	5.0	23.0	560,000	1.5
Aug. 9	Aug. 10		12.0	5.4	6.6	28.0	12.0	16.0	8.0	1.75	10.0	16.0	270,000	2.0
Aug. 11	Aug. 12		46.0	21.0	25.0	11.0	11.0	0.0	9.0	3.50	13.0	23.0	360,000	1.7
Aug. 13	Aug. 14		109.0	38.0	71.0	15.0	14.0	1.0	9.5	3.75	10.0	20.0	350,000	1.8
Aug. 19	Aug. 20	20.5	13.2	8.4	4.8	12.0	12.0	0.0	12.0	3.25	10.0	12.0	90,000	1.9
Aug. 21	Aug. 22	20.5	36.0	17.0	19.0	4.0	4.0	0.0	14.0	3.75	15.0	19.0	180,000	1.8
Aug. 23	Aug. 24	20.0	47.5	24.5	23.0	8.0	6.0	2.0	14.0	1.70	15.0	16.0	390,000	2.3
Aug. 27	Aug. 28	20.0	27.0	16.0	11.0	6.0	4.0	2.0	14.0	1.60	15.0	17.0	560,000	1.6
Aug. 29	Aug. 30	20.0	30.0	15.0	15.0	12.0	8.0	4.0	14.0	0.70	10.0	11.0	160,000	1.8
Aug. 31	Sept. 1	20.0	19.5	14.5	5.5	8.0	8.0	0.0	16.0	1.40	12.0	19.0		2.6
Sept. 4	Sept. 5	22.0	48.0	33.0	15.0	7.0	6.0	1.0	16.0	1.20	10.0	24.0		2.8
Sept. 6	Sept. 7	20.5	13.0	8.0	5.0	9.0	7.0	2.0	15.0	1.30	10.0	16.0		3.1
Sept. 8	Sept. 9	21.0	41.0	22.5	18.5	9.0	8.0	1.0	16.0	0.70	10.0	25.0		3.1
Sept. 14	Sept. 15		23.6	15.2	8.4	12.0	11.0	1.0	17.0	1.20	9.0	18.0		3.4
Sept. 16	Sept. 17	22.5	39.0	22.0	17.0	13.0	13.0	0.0	17.0	0.80	8.0	22.0		3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	15.5	76.0	48.0	28.0	15.0			19.0	0.40	0.0	33.0		3.0
Oct. 24	Oct. 25	15.0	26.0	26.0	0.0	16.0			20.0	0.10	0.0	15.0	120,000	
Oct. 26	Oct. 27		19.0	18.0	1.0	11.0			22.0	0.40	2.0	25.0		4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	14.0	110.0	60.0	50.0	18.0			20.0	1.80	5.0	20.0	180,000	2.3
Nov. 23	Nov. 24		64.0	38.0	26.0	9.0			14.0	1.00	10.0	14.0	180,000	4.0
Nov. 25	Nov. 26	12.5	54.0	24.0	30.0	13.0			12.0	0.60	9.0	17.0	240,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	8.0	130.0	72.0	58.0	15.0			24.0	0.40	8.0	42.0	180,000	2.7
Dec. 5	Dec. 6	9.0	76.0	32.0	44.0	14.0			18.0	0.50	8.0	23.0	260,000	2.6
Dec. 7	Dec. 8		72.0	40.0	32.0	12.0			18.0	1.60	10.0	19.0		2.8
Dec. 20	Dec. 21	11.0	75.0	33.0	42.0	12.0	11.0	1.0	16.0	0.50	12.0	22.0	150,000	
Dec. 22	Dec. 23		71.0	39.0	32.0	13.0	9.0	4.0	13.0	0.60	12.0	21.0		
Dec. 26	Dec. 27	10.0	44.0	31.0	13.0	12.0	9.0	3.0	16.0	0.70	6.0	25.0	220,000	3.4
Dec. 28	Dec. 29	11.0	57.0	44.0	13.0	13.0	10.0	3.0	14.0	0.80	8.0	22.0	290,000	2.8
Jan. 7	Jan. 9	8.3	68.0	49.0	19.0	11.0	9.0	2.0	11.0	0.60	7.0	20.0	140,000	4.6
Jan. 10	Jan. 12	8.0	59.0	48.0	11.0	6.0	5.0	1.0	13.0	0.60	5.0	18.0	60,000	3.9
Jan. 15	Jan. 17	8.5	49.0	47.0	2.0	10.0	9.0	1.0	13.0	1.40	8.0	27.0	180,000	3.5
Jan. 18	Jan. 20	9.0	71.0	58.0	13.0	9.0	7.0	2.0	17.0	0.40	8.0	31.0	230,000	3.2
Jan. 25	Jan. 27	4.0	71.0	64.0	7.0	12.0	10.0	2.0	14.0	0.40	6.0	24.0	140,000	3.8
Jan. 28	Jan. 30	7.0	60.0	48.0	12.0	10.0	9.0	1.0	13.0	0.30	7.0	26.0	190,000	3.0
Feb. 2	Feb. 4	6.0	48.0	38.0	10.0	9.0	8.0	1.0	16.0	0.20	7.0	35.0	480,000	3.8
Feb. 5	Feb. 7	6.2	136.0	100.0	36.0	16.0	13.0	3.0	16.0	0.20	10.0	42.0	300,000	3.2
Feb. 11	Feb. 13	7.0	64.0	52.0	12.0	10.0	8.0	2.0	13.0	0.40	7.0	26.0	170,000	4.1
Feb. 14	Feb. 16	8.5	48.0	40.0	8.0	9.0	8.0	1.0	13.0	0.10	7.0	18.0	210,000	4.3
Feb. 20	Feb. 22	6.8	91.0	70.0	21.0	10.0	8.0	2.0	13.0	0.40	10.0	29.0	150,000	3.1
Feb. 23	Feb. 25	7.5	68.0	54.0	14.0	11.0	9.0	2.0	15.0	0.10	7.0	31.0	180,000	3.3
Mar. 1	Mar. 3	8.0	93.0	76.0	17.0	13.0	9.0	4.0	14.0	0.20	10.0	32.0	130,000	3.3
Mar. 4	Mar. 6	7.5	91.0	77.0	14.0	9.0	8.0	1.0	12.0	0.30	7.0	28.0	170,000	3.7
Mar. 9	Mar. 11	8.0	189.0	153.0	36.0	11.0	9.0	2.0	13.0	0.30	8.0	51.0	250,000	3.5
Mar. 12	Mar. 14	8.5	154.0	126.0	28.0	13.0	9.0	4.0	13.0	0.30	12.0	46.0	110,000	3.3
Mar. 19	Mar. 24	9.2	94.0	82.0	12.0	22.0	14.0	8.0	16.0	0.30	10.0	38.0	240,000	3.1
Mar. 27	April 11	11.3	106.0	84.0	22.0	14.0	11.0	3.0	16.0	0.10	7.0	37.0	430,000	3.6
April 14	April 29	13.0	56.0	41.0	15.0	12.0	10.0	2.0	15.0	0.10	7.0	32.0	230,000	5.3
April 30	May 7	13.9	55.0	38.0	17.0	12.0	10.0	2.0	16.0	0.40	12.0	33.0	190,000	5.3

TABLE No. 10.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million										Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed		
						Organic			Free Ammonia	Nitrites	Nitrates			
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						
Settled Effluent From Six-foot Bed 1" to 2" Stone.														
Aug. 1	Aug. 2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1.5
Aug. 3	Aug. 4	-----	16.0	12.0	4.0	5.0	2.0	3.0	12.0	-----	-----	5.0	-----	1.5
Aug. 5	Aug. 6	-----	14.8	9.6	5.2	8.0	6.0	2.0	-----	-----	-----	18.0	510,000	1.5
Aug. 9	Aug. 10	-----	9.2	3.8	5.4	10.0	8.0	2.0	9.0	2.00	10.0	14.0	290,000	2.0
Aug. 11	Aug. 12	-----	19.0	13.4	5.6	13.0	12.0	1.0	9.5	2.50	13.0	12.0	280,000	1.7
Aug. 13	Aug. 14	-----	8.4	4.8	3.6	5.0	3.0	2.0	10.0	4.25	10.0	15.0	310,000	1.8
Aug. 19	Aug. 20	20.5	6.8	5.2	1.6	16.0	16.0	0.0	7.0	3.50	10.0	12.0	130,000	1.9
Aug. 21	Aug. 22	20.5	8.4	4.0	4.4	3.0	2.0	1.0	15.0	5.00	15.0	14.0	100,000	1.8
Aug. 23	Aug. 24	20.0	16.8	7.6	9.2	6.0	6.0	0.0	13.0	2.00	20.0	15.0	170,000	2.3
Aug. 27	Aug. 28	20.0	6.0	6.0	0.0	7.0	6.0	1.0	14.0	1.80	15.0	13.0	260,000	1.6
Aug. 29	Aug. 30	20.0	9.2	6.0	3.2	11.0	8.0	3.0	14.0	0.60	8.0	11.0	140,000	1.8
Aug. 31	Sept. 1	20.0	10.8	7.6	3.2	8.0	7.0	1.0	16.0	1.75	12.0	20.0	-----	2.6
Sept. 4	Sept. 5	22.0	20.0	15.0	5.0	9.0	9.0	0.0	16.0	1.10	5.0	18.0	-----	2.8
Sept. 6	Sept. 7	20.5	10.0	5.6	4.4	8.0	4.0	4.0	16.0	1.60	5.0	13.0	-----	3.1
Sept. 8	Sept. 9	21.0	27.2	16.0	11.2	9.0	8.0	1.0	16.0	0.60	5.0	21.0	-----	3.1
Sept. 14	Sept. 15	-----	15.6	11.6	4.0	8.0	8.0	0.0	17.0	1.30	9.0	12.0	-----	3.4
Sept. 16	Sept. 17	22.5	24.8	24.8	0.0	13.0	13.0	0.0	17.0	0.80	6.0	18.0	-----	3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	15.5	60.0	40.0	20.0	13.0	-----	-----	21.0	1.30	1.0	29.0	-----	3.0
Oct. 24	Oct. 25	15.0	15.0	14.0	1.0	15.0	-----	-----	20.0	0.30	0.0	15.0	210,000	-----
Oct. 26	Oct. 27	-----	12.0	10.0	2.0	10.0	-----	-----	23.0	0.20	1.0	13.0	-----	4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	14.0	60.0	42.0	18.0	17.0	-----	-----	20.0	1.60	5.0	14.0	280,000	2.3
Nov. 23	Nov. 24	-----	56.0	32.0	24.0	8.0	-----	-----	14.0	1.00	10.0	19.0	150,000	4.0
Nov. 25	Nov. 26	12.5	50.0	24.0	26.0	13.0	-----	-----	13.0	0.60	5.0	12.0	140,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	8.0	72.0	44.0	28.0	15.0	-----	-----	24.0	0.40	5.0	30.0	190,000	2.7
Dec. 5	Dec. 6	9.0	40.0	16.0	24.0	13.0	-----	-----	17.0	0.30	10.0	21.0	190,000	2.6
Dec. 7	Dec. 8	-----	48.0	28.0	20.0	12.0	-----	-----	18.0	1.00	15.0	13.0	-----	2.8
Dec. 20	Dec. 21	11.0	55.0	18.0	37.0	11.0	10.0	1.0	16.0	0.50	15.0	17.0	120,000	-----
Dec. 22	Dec. 23	-----	33.0	17.0	16.0	9.0	7.0	2.0	13.0	0.50	15.0	14.0	-----	-----
Dec. 26	Dec. 27	10.0	29.0	23.0	6.0	8.0	6.0	2.0	17.0	0.60	8.0	16.0	220,000	3.4
Dec. 28	Dec. 29	11.0	33.0	24.0	9.0	14.0	11.0	3.0	14.0	0.40	12.0	17.0	220,000	2.8
Jan. 7	Jan. 9	8.3	36.0	26.0	10.0	10.0	7.0	3.0	12.0	0.40	7.0	18.0	130,000	4.6
Jan. 10	Jan. 12	8.0	36.0	24.0	12.0	8.0	4.0	4.0	13.0	0.40	7.0	15.0	80,000	3.9
Jan. 15	Jan. 17	8.5	32.0	28.0	4.0	8.0	7.0	1.0	13.0	1.20	9.0	18.0	100,000	3.5
Jan. 18	Jan. 20	9.0	36.0	28.0	8.0	8.0	6.0	2.0	18.0	0.40	8.0	26.0	170,000	3.2
Jan. 25	Jan. 27	4.0	50.0	43.0	7.0	9.0	6.0	3.0	15.0	0.40	6.0	16.0	220,000	3.8
Jan. 28	Jan. 30	7.0	41.0	30.0	11.0	10.0	8.0	2.0	13.0	0.50	7.0	22.0	190,000	3.0
Feb. 2	Feb. 4	6.0	40.0	32.0	8.0	6.0	5.0	1.0	18.0	0.20	7.0	34.0	330,000	3.8
Feb. 5	Feb. 7	6.2	24.0	16.0	8.0	12.0	10.0	2.0	15.0	0.20	10.0	29.0	160,000	3.2
Feb. 11	Feb. 13	7.0	28.0	20.0	8.0	11.0	10.0	1.0	12.0	0.40	7.0	21.0	140,000	4.1
Feb. 14	Feb. 16	8.5	25.0	22.0	3.0	9.0	8.0	1.0	13.0	0.10	7.0	18.0	100,000	4.3
Feb. 20	Feb. 22	6.8	34.0	26.0	8.0	9.0	8.0	1.0	13.0	0.40	10.0	22.0	50,000	3.1
Feb. 23	Feb. 25	7.5	30.0	28.0	2.0	8.0	7.0	1.0	16.0	0.15	8.0	24.0	190,000	3.3
Mar. 1	Mar. 3	8.0	33.0	33.0	0.0	10.0	8.0	2.0	14.0	0.20	10.0	24.0	110,000	3.3
Mar. 4	Mar. 6	7.5	34.0	34.0	0.0	7.0	5.0	2.0	13.0	0.30	8.0	20.0	120,000	3.7
Mar. 9	Mar. 11	8.0	36.0	25.0	11.0	10.0	9.0	1.0	13.0	0.30	8.0	22.0	150,000	3.5
Mar. 12	Mar. 14	8.5	17.0	17.0	0.0	8.0	7.0	1.0	13.0	0.40	12.0	20.0	80,000	3.3
Mar. 19	Mar. 24	9.2	13.0	12.0	1.0	11.0	8.0	3.0	16.0	0.30	12.0	15.0	500,000	3.1
Mar. 27	April 11	11.3	19.0	13.0	6.0	11.0	10.0	1.0	16.0	0.05	8.0	19.0	180,000	3.6
April 14	April 29	13.0	57.0	42.0	15.0	12.0	10.0	2.0	15.0	0.20	7.0	27.0	160,000	5.3
April 30	May 7	13.9	44.0	33.0	11.0	10.0	9.0	1.0	16.0	0.40	10.0	26.0	170,000	5.3

TABLE No. 11.

Period Covered 1907-8 From	To	Temp. Degrees Cent.	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp.	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
Effluent From Nine-foot Sprinkling Filter 1" to 2" Stone.														
Aug. 1	Aug. 2													1.5
Aug. 3	Aug. 4		12.0	12.0	0.0	6.0	5.0	1.0	10.0	2.00	4.0	10.0		1.5
Aug. 5	Aug. 6		9.5	5.0	4.5	7.0	6.0	1.0	11.0	1.60	6.5	17.0	580,000	1.5
Aug. 9	Aug. 10		13.0	5.6	7.4	9.0	9.0	0.0	7.0	1.75	10.0	14.0	330,000	2.0
Aug. 11	Aug. 12		18.6	10.4	8.2	16.0	13.0	3.0	5.5	2.13	15.0	11.0	250,000	1.7
Aug. 13	Aug. 14		12.4	5.2	7.2	8.5	7.5	1.0	6.5	3.25	15.0	11.0	190,000	1.8
Aug. 19	Aug. 20	20.5	9.6	8.8	0.8	14.0	14.0	0.0	6.0	3.25	15.0	13.0	110,000	1.9
Aug. 21	Aug. 22	19.5	24.8	10.8	14.0	5.0	5.0	0.0	9.0	4.50	20.0	13.0	200,000	1.8
Aug. 23	Aug. 24	20.0	14.5	7.0	7.5	10.0	10.0	0.0	9.0	1.50	15.0	13.0	270,000	2.3
Aug. 27	Aug. 28	20.0	14.0	11.0	3.0	5.0	4.0	1.0	8.0	1.90	20.0	12.0	350,000	1.6
Aug. 29	Aug. 30	20.0	9.6	9.2	0.4	13.0	11.0	2.0	7.0	0.60	15.0	10.0	190,000	1.8
Aug. 31	Sept. 1	20.0	12.0	10.4	1.6	11.0	11.0	0.0	8.5	1.75	15.0	14.0		2.6
Sept. 4	Sept. 5	22.0	38.0	24.0	14.0	5.0	3.0	2.0	11.0	1.60	15.0	18.0		2.8
Sept. 6	Sept. 7	20.0	11.6	9.2	2.4	6.5	6.5	0.0	9.5	1.80	15.0	13.0		3.1
Sept. 8	Sept. 9	21.0	21.6	17.6	4.0	11.0	11.0	0.0	13.0	1.10	10.0	15.0		3.1
Sept. 14	Sept. 15		20.0	8.8	11.2	11.0	11.0	0.0	12.0	2.20	15.0	10.0		3.4
Sept. 16	Sept. 17	22.5	17.6	10.4	7.2	8.0	8.0	0.0	12.0	0.90	10.0	16.0		3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	15.0	48.0	34.0	14.0	13.0			19.0	1.60	2.0	22.0		3.0
Oct. 24	Oct. 25	15.0	14.0	12.0	2.0	14.0			19.0	0.60	3.0	11.0	150,000	
Oct. 26	Oct. 27		11.0	9.0	2.0	10.0			20.0	0.60	6.0	12.0		4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	14.0	62.0	40.0	22.0	14.0			14.0	1.30	15.0	13.0	180,000	2.3
Nov. 23	Nov. 24		66.0	34.0	32.0	10.0			10.0	0.80	15.0	12.0	70,000	4.0
Nov. 25	Nov. 26	12.0	52.0	20.0	32.0	11.0			9.0	0.60	10.0	12.0	120,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	8.0	112.0	62.0	50.0	13.0			20.0	0.50	15.0	30.0	130,000	2.7
Dec. 5	Dec. 6	8.5	84.0	38.0	46.0	13.0			14.0	0.40	10.0	21.0	140,000	2.6
Dec. 7	Dec. 8		84.0	42.0	42.0	12.0			12.0	1.10	20.0	14.0		2.8
Dec. 20	Dec. 21	9.0	121.0	26.0	95.0	13.0	12.0	1.0	11.0	0.50	15.0	16.0	260,000	
Dec. 22	Dec. 23		159.0	72.0	87.0	10.0	3.0	7.0	10.0	0.40	15.0	18.0		
Dec. 26	Dec. 27	9.5	56.0	34.0	22.0	9.0	7.0	2.0	13.0	0.70	12.0	15.0	140,000	3.4
Dec. 28	Dec. 29	11.0	51.0	33.0	18.0	13.0	11.0	2.0	11.0	0.60	15.0	16.0		2.8
Jan. 7	Jan. 9	8.3	34.0	24.0	10.0	11.0	7.0	4.0	10.0	0.70	8.0	15.0	120,000	4.6
Jan. 10	Jan. 12	7.0	53.0	38.0	15.0	7.0	5.0	2.0	10.0	0.50	10.0	13.0	80,000	3.9
Jan. 15	Jan. 17	8.5	36.0	34.0	2.0	9.0	8.0	1.0	9.0	1.30	12.0	17.0	180,000	3.5
Jan. 18	Jan. 20	9.0	36.0	26.0	10.0	14.0	8.0	6.0	12.0	0.30	12.0	33.0	160,000	3.2
Jan. 25	Jan. 27	4.3	58.0	48.0	10.0	10.0	7.0	3.0	12.0	3.20	8.0	15.0	230,000	3.8
Jan. 28	Jan. 30	7.2	64.0	48.0	16.0	9.0	7.0	2.0	12.0	0.40	12.0	19.0	130,000	3.0
Feb. 2	Feb. 4	5.5	44.0	33.0	11.0	8.0	7.0	1.0	12.0	0.40	12.0	27.0	140,000	3.8
Feb. 5	Feb. 7	5.3	107.0	71.0	36.0	12.0	9.0	3.0	13.0	0.20	15.0	27.0	80,000	3.2
Feb. 11	Feb. 13	7.2	41.0	28.0	13.0	10.0	7.0	3.0	12.0	0.40	10.0	20.0	110,000	4.1
Feb. 14	Feb. 16	8.2	38.0	26.0	12.0	6.0	5.0	1.0	11.0	0.05	12.0	15.0	120,000	4.3
Feb. 20	Feb. 22	6.8	44.0	32.0	12.0	8.0	7.0	1.0	11.0	0.20	10.0	18.0	80,000	3.1
Feb. 23	Feb. 25	7.3	48.0	40.0	8.0	9.0	7.0	2.0	13.0	0.20	15.0	18.0	100,000	3.3
Mar. 1	Mar. 3	7.8	43.0	39.0	4.0	11.0	9.0	2.0	10.0	0.20	12.0	19.0	110,000	3.3
Mar. 4	Mar. 6	7.3	184.0	136.0	48.0	12.0	5.0	7.0	12.0	0.30	12.0	34.0	130,000	3.7
Mar. 9	Mar. 11	8.2	53.0	40.0	13.0	10.0	7.0	3.0	9.0	0.20	15.0	19.0	160,000	3.5
Mar. 12	Mar. 14	8.8	46.0	37.0	9.0	9.0	8.0	1.0	9.0	0.30	25.0	17.0	130,000	3.3
Mar. 19	Mar. 24	9.4	43.0	34.0	9.0	10.0	8.0	2.0	11.0	0.80	20.0	14.0	180,000	3.1
Mar. 27	April 11	11.4	40.0	28.0	12.0	10.0	9.0	1.0	12.0	0.10	25.0	16.0	170,000	3.6
April 14	April 29	13.0	73.0	45.0	28.0	11.0	10.0	1.0	13.0	0.30	24.0	24.0	120,000	5.3
April 30	May 7	13.9	50.0	36.0	14.0	11.0	10.0	1.0	12.0	0.20	25.0	28.0	150,000	5.3

TABLE No. 12.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million									Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as								
						Organic			Free Ammonia	Nitrites	Nitrates			
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						
Settled Effluent From Nine-foot Bed 1" to 2" Stone.														
Aug. 1	Aug. 2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----------	1.5
Aug. 3	Aug. 4	-----	14.0	10.0	4.0	4.0	1.0	3.0	12.0	-----	-----	8.0	----------	1.5
Aug. 5	Aug. 6	-----	6.0	2.4	3.6	7.0	7.0	0.0	-----	-----	-----	18.0	440,000	1.5
Aug. 9	Aug. 10	-----	11.4	4.6	6.8	8.5	8.5	0.0	7.5	2.00	10.0	15.0	400,000	2.0
Aug. 11	Aug. 12	-----	14.4	8.4	6.0	9.0	-----	-----	6.0	2.38	13.0	9.0	200,000	1.7
Aug. 13	Aug. 14	-----	6.4	4.4	2.0	2.5	1.5	1.0	7.5	3.50	10.0	9.0	120,000	1.8
Aug. 19	Aug. 20	20.5	8.4	6.8	1.6	15.0	15.0	0.0	5.0	3.35	20.0	12.0	70,000	1.9
Aug. 21	Aug. 22	19.5	12.4	7.2	5.6	3.0	1.0	2.0	11.0	5.00	20.0	13.0	90,000	1.8
Aug. 23	Aug. 24	20.0	10.4	6.4	4.0	8.0	8.0	0.0	10.0	1.70	15.0	11.0	110,000	2.3
Aug. 27	Aug. 28	20.0	8.8	6.4	2.4	5.5	3.5	2.0	9.5	2.00	20.0	10.0	370,000	1.6
Aug. 29	Aug. 30	20.0	8.4	4.8	3.6	12.0	11.0	1.0	8.0	0.70	15.0	12.0	280,000	1.8
Aug. 31	Sept. 1	20.0	8.0	6.4	1.6	11.0	11.0	0.0	8.5	1.90	16.0	15.0	----------	2.6
Sept. 4	Sept. 5	22.0	21.0	19.0	2.0	3.0	3.0	0.0	11.0	1.30	15.0	15.0	----------	2.8
Sept. 6	Sept. 7	20.5	8.0	5.6	2.4	7.0	6.0	1.0	10.0	1.80	15.0	11.0	----------	3.1
Sept. 8	Sept. 9	21.0	19.2	10.8	8.4	9.0	9.0	0.0	14.0	0.80	7.0	14.0	----------	3.1
Sept. 14	Sept. 15	-----	10.4	6.8	3.6	11.0	11.0	0.0	11.0	2.10	15.0	13.0	----------	3.4
Sept. 16	Sept. 17	22.5	13.6	8.0	5.6	10.0	8.0	2.0	12.0	1.20	10.0	15.0	----------	3.5
Filter rested from September 20 to October 21, inclusive.														
Oct. 22	Oct. 23	15.0	48.0	28.0	20.0	13.0	-----	-----	19.0	1.60	10.0	24.0	----------	3.0
Oct. 24	Oct. 25	15.0	14.0	14.0	0.0	18.0	-----	-----	15.0	0.60	1.0	11.0	130,000	-------
Oct. 26	Oct. 27	-----	13.0	8.0	5.0	28.0	-----	-----	20.0	0.60	5.0	11.0	----------	4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.														
Nov. 21	Nov. 22	14.0	44.0	26.0	18.0	12.0	-----	-----	14.0	1.20	15.0	11.0	190,000	2.3
Nov. 23	Nov. 24	-----	48.0	28.0	20.0	9.0	-----	-----	10.0	0.60	15.0	10.0	40,000	4.0
Nov. 25	Nov. 26	12.0	34.0	12.0	22.0	9.0	-----	-----	8.0	1.40	15.0	11.0	60,000	4.0
Filter rested from November 29 to December 2, inclusive.														
Dec. 3	Dec. 4	8.0	56.0	30.0	26.0	11.0	-----	-----	20.0	0.60	15.0	25.0	120,000	2.7
Dec. 5	Dec. 6	8.5	40.0	14.0	26.0	11.0	-----	-----	14.0	0.60	15.0	14.0	130,000	2.6
Dec. 7	Dec. 8	-----	48.0	22.0	26.0	10.0	-----	-----	12.0	0.60	20.0	11.0	----------	2.8
Dec. 20	Dec. 21	9.0	22.0	13.0	9.0	12.0	11.0	1.0	11.0	0.50	12.0	13.0	210,000	-------
Dec. 22	Dec. 23	-----	82.0	26.0	56.0	9.0	3.0	6.0	10.0	0.60	12.0	16.0	----------	-------
Dec. 26	Dec. 27	9.5	32.0	19.0	13.0	11.0	10.0	1.0	12.0	0.60	12.0	15.0	110,000	3.4
Dec. 28	Dec. 29	11.0	35.0	25.0	10.0	12.0	10.0	2.0	11.0	0.40	12.0	17.0	120,000	2.8
Jan. 7	Jan. 9	8.3	62.0	34.0	28.0	10.0	9.0	1.0	10.0	0.40	8.0	13.0	100,000	4.6
Jan. 10	Jan. 12	7.0	42.0	23.0	19.0	7.5	6.5	1.0	9.5	0.50	10.0	13.0	90,000	3.9
Jan. 15	Jan. 17	8.5	27.0	26.0	1.0	9.0	7.0	2.0	9.0	1.40	12.0	17.0	60,000	3.5
Jan. 18	Jan. 20	9.0	36.0	26.0	10.0	8.0	7.0	1.0	13.0	0.40	12.0	22.0	150,000	3.2
Jan. 25	Jan. 27	4.3	37.0	28.0	9.0	9.0	9.0	0.0	13.0	0.20	10.0	13.0	220,000	3.8
Jan. 28	Jan. 30	7.2	36.0	28.0	8.0	10.0	8.0	2.0	11.0	0.30	12.0	18.0	180,000	3.0
Feb. 2	Feb. 4	5.5	39.0	31.0	8.0	10.0	8.0	2.0	13.0	0.20	12.0	27.0	230,000	3.8
Feb. 5	Feb. 7	5.3	22.0	13.0	9.0	9.0	8.0	1.0	13.0	0.20	15.0	23.0	140,000	3.2
Feb. 11	Feb. 13	7.2	31.0	24.0	7.0	9.0	7.0	2.0	12.0	0.40	10.0	18.0	130,000	4.1
Feb. 14	Feb. 16	8.2	30.0	22.0	8.0	6.0	5.0	1.0	11.0	0.10	10.0	12.0	70,000	4.3
Feb. 20	Feb. 22	6.8	28.0	21.0	7.0	8.0	6.0	2.0	11.0	0.20	10.0	18.0	60,000	3.1
Feb. 23	Feb. 25	7.3	39.0	30.0	9.0	8.0	7.0	1.0	13.0	0.20	12.0	22.0	60,000	3.3
Mar. 1	Mar. 3	7.8	23.5	21.0	2.5	9.0	8.0	1.0	10.0	0.20	12.0	19.0	120,000	3.3
Mar. 4	Mar. 6	7.3	27.5	21.5	6.0	5.0	3.0	2.0	11.0	0.30	12.0	21.0	100,000	3.7
Mar. 9	Mar. 11	8.2	33.0	23.5	9.5	11.0	7.5	3.5	8.5	0.20	15.0	20.0	120,000	3.5
Mar. 12	Mar. 14	8.8	22.0	18.0	4.0	8.0	7.0	1.0	9.0	0.30	23.0	17.0	70,000	3.3
Mar. 19	Mar. 24	9.4	21.0	14.0	7.0	8.0	6.0	2.0	12.0	0.60	20.0	19.0	140,000	3.1
Mar. 27	April 11	11.4	19.0	16.0	3.0	10.0	9.0	1.0	12.0	0.05	20.0	14.0	140,000	3.6
April 14	April 29	13.0	50.0	33.0	17.0	10.0	8.0	2.0	13.0	0.30	18.0	23.0	110,000	5.3
April 30	May 7	13.9	36.0	25.0	11.0	12.0	9.0	3.0	12.0	0.30	20.0	28.0	260,000	5.3

TABLE No. 13.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed			
						Organic			Free Ammonia	Nitrites	Nitrates				
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.							
Effluent From Twelve foot Sprinkling Filter 1" to 2" Stone.															
Aug. 1	Aug. 2														1.5
Aug. 3	Aug. 4		17.0	12.0	5.0	1.0	0.0	1.0	13.0	1.00	6.0	6.0			1.5
Aug. 5	Aug. 6		12.5	3.0	9.5	9.0	7.0	2.0	9.0	1.80	8.0	17.0	270,000		1.5
Aug. 9	Aug. 10		14.0	4.8	9.2	14.0	13.0	1.0	4.5	1.25	13.0	18.0	260,000		2.0
Aug. 11	Aug. 12		16.8	11.8	5.0	11.0	10.0	1.0	4.0	2.75	15.0	9.0	200,000		1.7
Aug. 13	Aug. 14		7.2	4.4	2.8	4.0	4.0	0.0	4.0	4.25	20.0	11.0	140,000		1.8
Aug. 19	Aug. 20	20.5	10.0	6.8	3.2	16.0	13.0	3.0	3.5	2.50	20.0	10.0	70,000		1.9
Aug. 21	Aug. 22	21.0	19.2	8.0	11.2	4.0	3.0	1.0	5.0	3.75	30.0	12.0	110,000		1.8
Aug. 23	Aug. 24	20.0	26.4	10.8	15.6	13.0	13.0	0.0	4.0	2.00	25.0	11.0	190,000		2.3
Aug. 27	Aug. 28	20.0	12.8	10.4	2.4	6.0	6.0	0.0	5.0	1.20	30.0	11.0	290,000		1.6
Aug. 29	Aug. 30	20.0	10.0	7.6	2.4	12.0	11.0	1.0	5.0	0.20	20.0	10.0	170,000		1.8
Aug. 31	Sept. 1	20.0	12.0	8.8	3.2	13.0	13.0	0.0	5.0	1.35	15.0	13.0			2.6
Sept. 4	Sept. 5	22.0	51.0	3.9	12.0	7.0	6.0	1.0	7.0	1.80	20.0	18.0			2.8
Sept. 6	Sept. 7	20.5	20.8	6.4	14.4	8.0	7.0	1.0	9.0	2.00	15.0	10.0			3.1
Sept. 8	Sept. 9	22.0	27.2	14.4	12.8	9.0	9.0	0.0	9.0	1.20	15.0	17.0			3.1
Sept. 14	Sept. 15		33.6	11.6	22.0	10.0	10.0	0.0	11.0	2.40	15.0	12.0			3.4
Sept. 16	Sept. 17	22.5	30.0	12.8	17.2	10.0	10.0	0.0	11.0	1.10	15.0	18.0			3.5
Filter rested from September 20 to October 21, inclusive.															
Oct. 22	Oct. 23	15.0	43.0	24.0	19.0	12.0			19.0	1.00	7.0	24.0			3.0
Oct. 24	Oct. 25	14.5	13.0	13.0	0.0	11.0			18.0	0.60	2.0	12.0	130,000		
Oct. 26	Oct. 27		11.0	5.0	6.0	9.0			18.0	0.80	10.0	11.0			4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.															
Nov. 21	Nov. 22	14.0	72.0	44.0	28.0	14.0			14.0	1.20	15.0	14.0	150,000		2.3
Nov. 23	Nov. 24		62.0	34.0	28.0	11.0			7.5	0.70	15.0	12.0	90,000		4.0
Nov. 25	Nov. 26	12.0	52.0	26.0	26.0	11.0			7.5	1.00	20.0	23.0	240,000		4.0
Filter rested from November 29 to December 2, inclusive.															
Dec. 3	Dec. 4	7.0	160.0	86.0	74.0	19.0			19.0	0.70	20.0	35.0	120,000		2.7
Dec. 5	Dec. 6	8.5	122.0	56.0	66.0	16.0			12.0	0.50	15.0	28.0	150,000		2.6
Dec. 7	Dec. 8		98.0	56.0	42.0	10.0			10.0	0.90	25.0	20.0			2.8
Dec. 20	Dec. 21	9.0	35.0	19.0	16.0	12.0	10.0	2.0	9.0	0.40	20.0	15.0	80,000		
Dec. 22	Dec. 23		65.0	34.0	31.0	11.0	3.5	7.5	7.5	0.30	25.0	15.0			
Dec. 26	Dec. 27	9.5	38.0	26.0	12.0	12.0	10.0	2.0	11.0	0.60	20.0	14.0	180,000		3.4
Dec. 28	Dec. 29	11.0	39.0	27.0	12.0	12.0	11.0	1.0	10.0	0.40	20.0	15.0	190,000		2.8
Jan. 7	Jan. 9	7.3	37.0	22.0	15.0	11.0	6.5	4.5	8.5	0.60	12.0	16.0	90,000		4.6
Jan. 10	Jan. 12	7.0	38.0	31.0	7.0	6.0	5.0	1.0	8.0	0.40	12.0	14.0	70,000		3.9
Jan. 15	Jan. 17	8.0	38.0	36.0	2.0	7.5	6.5	1.0	6.5	1.30	15.0	16.0	80,000		3.5
Jan. 18	Jan. 20	9.0	46.0	32.0	14.0	7.0	7.0	0.0	10.0	0.10	18.0	18.0	100,000		3.2
Jan. 25	Jan. 27	4.5	36.0	29.0	7.0	9.0	6.0	3.0	10.0	0.20	15.0	14.0	160,000		3.8
Jan. 28	Jan. 30	7.0	43.0	34.0	9.0	6.0	5.0	1.0	8.0	0.10	15.0	14.0	140,000		3.0
Feb. 2	Feb. 4	5.0	32.0	31.0	1.0	8.0	5.0	3.0	9.0	0.80	15.0	22.0	110,000		3.8
Feb. 5	Feb. 7	5.2	35.0	23.0	12.0	12.0	9.0	3.0	10.0	0.20	18.0	20.0	80,000		3.2
Feb. 11	Feb. 13	7.2	64.0	41.0	23.0	10.0	7.0	3.0	8.0	0.30	12.0	20.0	120,000		4.1
Feb. 14	Feb. 16	8.0	27.0	16.0	11.0	7.5	6.5	1.0	7.5	0.00	15.0	13.0	80,000		4.3
Feb. 20	Feb. 22	6.8	32.0	24.0	8.0	8.0	6.0	2.0	8.0	0.10	15.0	15.0	110,000		3.1
Feb. 23	Feb. 25	7.3	26.0	22.0	4.0	9.0	8.0	1.0	9.0	0.10	18.0	18.0			3.3
Mar. 1	Mar. 3	7.5	32.0	29.0	3.0	9.0	8.0	1.0	7.0	0.20	20.0	18.0	100,000		3.3
Mar. 4	Mar. 6	7.2	32.0	32.0	0.0	7.0	6.0	1.0	7.0	0.20	15.0	18.0	110,000		3.7
Mar. 9	Mar. 11	8.3	40.0	27.0	13.0	9.0	7.0	2.0	7.0	0.20	18.0	19.0	160,000		3.5
Mar. 12	Mar. 14	9.2	42.0	31.0	11.0	8.5	7.5	1.0	6.5	0.20	25.0	18.0	130,000		3.3
Mar. 19	Mar. 24	9.6	25.0	17.0	8.0	8.0	7.0	1.0	8.0	0.60	22.0	15.0	180,000		3.1
Mar. 27	April 11	11.6	46.0	38.0	8.0	13.0	11.0	2.0	8.0	0.05	25.0	17.0	130,000		3.6
April 14	April 29	13.3	65.0	40.0	25.0	10.0	9.0	1.0	9.0	0.10	22.0	23.0	120,000		5.3
April 30	May 7	13.6	50.0	32.0	18.0	11.0	9.0	2.0	8.0	0.10	25.0	25.0	160,000		5.3

TABLE No. 14.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed			
						Organic			Free Ammonia	Nitrites	Nitrates				
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.							
Settled Effluent From Twelve-foot Sprinkling Filter 1" to 2" Stone.															
Aug. 1	Aug. 2														1.5
Aug. 3	Aug. 4		14.0	14.0	0.0	1.0	0.0	1.0	12.0			18.0			1.5
Aug. 5	Aug. 6		8.8	3.6	5.2	8.0	8.0	0.0				17.0	280,000		1.5
Aug. 9	Aug. 10		12.8	4.4	8.4	16.0	15.0	1.0	5.0	1.50	13.0	14.0	320,000		2.0
Aug. 11	Aug. 12		14.8	9.6	5.2	8.5	7.5	1.0	4.5	1.38	15.0	7.0	130,000		1.7
Aug. 13	Aug. 14		7.6	6.4	1.2	10.0	9.0	1.0	5.0	3.00	15.0	10.0	90,000		1.8
Aug. 19	Aug. 20	20.5	6.4	4.8	1.6	13.0	13.0	0.0	6.0	3.00	20.0	11.0	90,000		1.9
Aug. 21	Aug. 22	21.0	10.0	4.4	5.6	3.0	2.0	1.0	6.0	4.50	30.0	12.0	160,000		1.8
Aug. 23	Aug. 24	20.0	9.2	6.0	3.2	10.0	10.0	0.0	5.0	2.80	25.0	10.0	120,000		2.3
Aug. 27	Aug. 28	20.0	7.6	6.4	1.2	8.5	7.5	1.0	4.5	1.80	20.0	10.0	350,000		1.6
Aug. 29	Aug. 30	20.0	8.0	4.8	3.2	8.5	8.5	0.0	5.5	1.40	20.0	14.0	100,000		1.8
Aug. 31	Sept. 1	20.0	8.0	6.4	1.6	9.0	5.0	4.0	6.0	1.75	15.0	14.0			2.6
Sept. 4	Sept. 5	22.0	15.0	7.0	8.0	6.5	5.5	1.0	7.5	1.70	15.0	13.0			2.8
Sept. 6	Sept. 7	20.5	6.0	3.2	2.8	7.5	7.5	0.0	9.5	1.70	15.0	12.0			3.1
Sept. 8	Sept. 9	22.0	15.6	8.8	6.8	9.0	9.0	0.0	10.0	1.30	15.0	12.0			3.1
Sept. 14	Sept. 15		18.0	7.6	10.4	10.0	10.0	0.0	11.0	2.20	15.0	11.0			3.4
Sept. 16	Sept. 17	22.5	17.2	10.4	6.8	11.0	9.0	2.0	11.0	1.20	10.0	16.0			3.5
Filter rested from September 20 to October 21, inclusive.															
Oct. 22	Oct. 23	15.0	56.0	42.0	14.0	14.0			18.0	2.20	8.0	21.0			3.0
Oct. 24	Oct. 25	14.5	15.0	14.0	1.0	10.0			20.0	0.60	2.0	11.0	160,000		
Oct. 26	Oct. 27		8.0	4.0	4.0	8.0			19.0	0.80	9.0	11.0			4.3
Filter rested from October 30 to November 6, and November 16 to 20, inclusive.															
Nov. 21	Nov. 22	14.0	48.0	20.0	28.0	13.0			14.0	1.20	15.0	11.0	150,000		2.3
Nov. 23	Nov. 24		50.0	28.0	22.0	8.0			8.0	0.60	15.0	8.0	80,000		4.0
Nov. 25	Nov. 26	12.0	40.0	20.0	20.0	12.0			7.5	0.80	20.0	12.0	100,000		4.0
Filter rested from November 29 to December 2, inclusive.															
Dec. 3	Dec. 4	7.0	76.0	44.0	32.0	12.0			19.0	0.80	20.0	26.0	70,000		2.7
Dec. 5	Dec. 6	8.5	54.0	24.0	30.0	12.0			12.0	0.60	20.0	17.0	90,000		2.6
Dec. 7	Dec. 8		70.0	32.0	38.0	10.0			10.0	0.70	30.0	13.0			2.8
Dec. 20	Dec. 21	9.0	15.0	9.0	6.0	10.0	9.0	1.0	9.0	0.40	20.0	12.0	50,000		
Dec. 22	Dec. 23		37.0	18.0	19.0	8.0	4.0	4.0	8.0	0.40	15.0	12.0			
Dec. 26	Dec. 27	9.5	23.0	18.0	5.0	9.0	8.0	1.0	10.0	0.60	18.0	13.0	140,000		3.4
Dec. 28	Dec. 29	11.0	29.0	17.0	12.0	10.0	9.0	1.0	9.0	0.40	20.0	12.0	150,000		2.8
Jan. 7	Jan. 9	7.3	27.0	21.0	6.0	12.0	6.5	5.5	8.5	0.40	12.0	12.0	100,000		4.6
Jan. 10	Jan. 12	7.0	32.0	20.0	12.0	5.0	5.0	0.0	8.0	0.40	12.0	12.0	60,000		3.9
Jan. 15	Jan. 17	8.0	28.0	26.0	2.0	7.0	6.0	1.0	7.0	1.10	15.0	12.0	60,000		3.5
Jan. 18	Jan. 20	9.0	38.0	24.0	14.0	7.0	6.0	1.0	10.0	0.10	18.0	17.0	120,000		3.2
Jan. 25	Jan. 27	4.5	32.0	25.0	7.0	7.0	5.0	2.0	11.0	0.20	15.0	12.0	150,000		3.8
Jan. 28	Jan. 30	7.0	35.0	28.0	7.0	6.5	5.5	1.0	7.5	0.40	15.0	13.0	110,000		3.0
Feb. 2	Feb. 4	5.0	30.0	22.0	8.0	7.5	6.5	1.0	9.5	0.10	15.0	21.0	270,000		3.8
Feb. 5	Feb. 7	5.2	20.0	18.0	2.0	8.0	7.0	1.0	10.0	0.10	18.0	19.0	60,000		3.2
Feb. 11	Feb. 13	7.2	38.0	28.0	10.0	8.5	7.5	1.0	7.5	0.20	12.0	14.0	110,000		4.1
Feb. 14	Feb. 16	8.0	22.0	14.0	8.0	7.0	6.0	1.0	8.0	0.05	15.0	13.0	110,000		4.3
Feb. 20	Feb. 22	6.8	52.0	22.0	30.0	7.5	7.5	0.0	7.5	0.10	15.0	15.0	80,000		3.1
Feb. 23	Feb. 25	7.3	36.0	24.0	12.0	7.0	6.0	1.0	9.0	0.30	18.0	14.0	70,000		3.3
Mar. 1	Mar. 3	7.5	24.0	17.5	6.5	9.0	8.0	1.0	7.0	0.10	20.0	17.0	90,000		3.3
Mar. 4	Mar. 6	7.2	25.5	19.0	6.5	7.5	6.5	1.0	6.5	0.20	15.0	13.0	90,000		3.7
Mar. 9	Mar. 11	8.3	37.5	18.5	19.0	9.0	7.0	2.0	7.0	0.20	18.0	17.0	120,000		3.5
Mar. 12	Mar. 14	9.2	26.0	20.0	6.0	8.0	7.0	1.0	6.0	0.30	25.0	15.0	80,000		3.3
Mar. 19	Mar. 24	9.6	27.0	15.0	12.0	8.0	7.0	1.0	8.0	0.20	20.0	12.0	150,000		3.1
Mar. 27	April 11	11.6	35.0	28.0	7.0	11.0	11.0	0.0	8.0	0.20	25.0	14.0	100,000		3.6
April 14	April 29	13.3	45.0	26.0	19.0	10.0	9.0	1.0	9.0	0.20	20.0	19.0	100,000		5.3
April 30	May 7	13.6	37.0	23.0	14.0	9.0	9.0	0.0	8.0	0.10	25.0	20.0	270,000		5.3

TABLE No. 15.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as										
						Organic			Free Ammonia	Nitrites	Nitrates					
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.								
Effluent From Six-foot Sprinkling Filter 2" to 4" Stone.																
Sept. 20	Sept. 21	22.0	32.0	31.0	1.0	14.0	12.0	2.0	17.0	0.20	0.5	21.0	3,600,000	3.5
Sept. 22	Sept. 23	-----	38.0	38.0	0.0	11.0	10.0	1.0	17.0	0.90	1.0	11.0	---------	3.0
Sept. 24	Sept. 25	19.5	27.0	18.0	9.0	18.0	18.0	0.0	11.0	0.70	5.0	17.0	1,500,000	3.8
Sept. 28	Sept. 29	-----	20.0	15.0	5.0	9.0	8.0	1.0	16.0	1.00	5.0	13.0	980,000	3.9
Sept. 30	Oct. 1	19.0	52.0	37.0	15.0	13.0	13.0	0.0	16.0	0.40	0.0	26.0	110,000	3.7
Oct. 2	Oct. 3	19.0	48.0	36.0	12.0	13.0	12.0	1.0	19.0	0.20	0.0	18.0	---------	3.7
Oct. 6	Oct. 7	19.0	168.0	78.0	90.0	16.0	13.0	3.0	23.0	0.00	0.0	34.0	1,900,000	1.4
Oct. 8	Oct. 9	17.0	144.0	80.0	64.0	12.0	8.0	4.0	19.0	0.80	0.0	31.0	610,000	2.4
Oct. 10	Oct. 11	17.5	120.0	58.0	62.0	11.0	8.0	3.0	22.0	0.60	2.0	28.0	400,000	3.3
Filter rested from October 22 to 29, inclusive.														
Oct. 30	Oct. 31	-----	122.0	70.0	52.0	16.0	-----	-----	24.0	0.10	0.0	28.0	350,000	4.1
Nov. 1	Nov. 2	-----	70.0	44.0	26.0	17.0	-----	-----	21.0	1.00	2.0	28.0	450,000	3.8
Nov. 3	Nov. 4	13.0	78.0	52.0	26.0	14.0	-----	-----	24.0	0.60	2.0	32.0	400,000	-------
Filter rested from November 7 to 14, inclusive.														
Nov. 15	Nov. 16	8.0	84.0	52.0	32.0	28.0	-----	-----	26.0	0.70	3.0	37.0	380,000	4.2
Nov. 17	Nov. 18	12.0	124.0	102.0	22.0	16.0	-----	-----	23.0	1.10	0.0	31.0	640,000	3.9
Nov. 29	----- --	12.0	116.0	82.0	34.0	16.0	-----	-----	23.0	0.60	2.0	35.0	---------	3.8
Dec. 11	Dec. 12	10.0	76.0	50.0	26.0	14.0	-----	-----	19.0	1.50	1.0	22.0	320,000	5.2
Dec. 13	Dec. 14	11.0	40.0	32.0	8.0	17.0	-----	-----	15.0	0.50	7.0	19.0	290,000	2.8
Dec. 15	Dec. 16	12.0	36.0	20.0	16.0	16.0	-----	-----	18.0	0.60	7.0	22.0	---------	3.1
Jan. 6	Jan. 8	6.3	51.0	36.0	15.0	10.0	7.0	3.0	16.0	0.40	4.0	39.0	260,000	4.5
Jan. 9	Jan. 11	6.0	37.0	33.0	4.0	6.0	5.0	1.0	15.0	0.40	4.0	20.0	---------	3.8
Jan. 16	Jan. 18	8.0	34.0	33.0	1.0	9.0	8.0	1.0	15.0	0.10	6.0	26.0	---------	3.4
Jan. 19	Jan. 21	9.0	85.0	74.0	11.0	11.0	9.0	2.0	20.0	0.00	4.0	35.0	---------	3.2
Feb. 3	Feb. 5	5.2	52.0	40.0	12.0	11.0	9.0	2.0	18.0	0.20	5.0	38.0	470,000	3.4
Feb. 6	Feb. 8	6.3	46.0	40.0	6.0	12.0	10.0	2.0	16.0	0.40	3.0	30.0	---------	3.4
Feb. 12	Feb. 14	7.7	40.0	28.0	12.0	9.0	7.0	2.0	13.0	0.30	2.0	25.0	300,000	4.4
Feb. 15	Feb. 17	7.8	62.0	50.0	12.0	11.0	9.0	2.0	16.0	0.40	4.0	32.0	340,000	4.1
Feb. 21	Feb. 23	6.5	44.0	32.0	12.0	8.0	7.0	1.0	17.0	0.20	5.0	28.0	---------	2.9
Feb. 24	Feb. 26	6.7	48.0	39.0	9.0	11.0	9.0	2.0	12.0	0.20	5.0	28.0	440,000	3.8
Feb. 29	Mar. 2	8.0	63.0	50.0	13.0	11.0	8.0	3.0	17.0	0.40	3.0	29.0	---------	3.3
Mar. 3	Mar. 5	7.8	44.0	36.0	8.0	12.0	10.0	2.0	15.0	0.20	3.0	30.0	120,000	3.1
Mar. 10	Mar. 12	7.5	55.0	44.0	11.0	12.0	10.0	2.0	14.0	0.30	3.0	29.0	---------	3.3
Mar. 13	Mar. 15	9.0	48.0	42.0	6.0	10.0	7.0	3.0	16.0	0.10	7.0	26.0	---------	3.2
Mar. 18	Mar. 23	8.6	47.0	38.0	9.0	13.0	11.0	2.0	14.0	0.20	5.0	25.0	310,000	3.1
Mar. 28	April 10	10.9	52.0	50.0	2.0	18.0	16.0	2.0	18.0	0.40	2.0	28.0	300,000	3.6
May 25	May 26	18.0	123.0	105.0	18.0	15.0	12.0	3.0	13.0	0.20	1.0	102.0	---------	-------
July 13	July 25	22.1	57.0	42.0	15.0	9.0	6.0	3.0	13.0	0.80	2.0	22.0	570,000	5.4
July 27	Aug. 8	22.6	66.0	47.0	19.0	7.0	5.0	2.0	12.0	1.20	5.0	24.0	500,000	4.9
Sept. 7	Sept. 19	19.5	32.0	28.0	4.0	10.0	9.0	1.0	17.0	0.60	1.0	22.0	400,000	4.8
Sept. 21	Oct. 3	19.2	47.0	39.0	8.0	7.0	5.0	2.0	16.0	0.40	2.5	25.0	450,000	5.2

TABLE No 16

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed			
						Organic			Free Ammonia	Nitrites	Nitrates				
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.							
Settled Effluent From Six-foot Sprinkling Filter 2" to 4" Stone.															
Sept. 20	Sept. 21	22.0	21.0	15.0	6.0	12.0	12.0	0.0	17.0	0.08	0.0	18.0	3,800,000	3.5
Sept. 22	Sept. 23	-----	34.0	28.0	6.0	12.0	11.0	1.0	17.0	1.20	3.0	9.0	---------	3.0
Sept. 24	Sept. 25	19.5	24.0	16.0	8.0	18.0	18.0	0.0	11.0	0.70	4.0	16.0	1,000,000	3.8
Sept. 28	Sept. 29	-----	12.0	6.0	6.0	12.0	9.0	3.0	16.0	1.00	5.0	8.0	560,000	3.9
Sept. 30	Oct. 1	19.0	36.0	30.0	6.0	17.0	15.0	2.0	14.0	0.50	1.0	20.0	110,000	3.7
Oct. 2	Oct. 3	19.0	35.0	29.0	6.0	12.0	10.0	2.0	19.0	0.20	0.0	12.0	---------	3.7
Oct. 6	Oct. 7	19.0	61.0	42.0	19.0	12.0	8.0	4.0	22.0	0.40	1.0	20.0	230,000	1.4
Oct. 8	Oct. 9	17.0	58.0	39.0	19.0	9.0	6.0	3.0	20.0	0.60	0.0	18.0	320,000	2.4
Oct. 10	Oct. 11	17.5	36.0	26.0	10.0	7.0	3.0	4.0	23.0	0.60	2.0	17.0	330,000	3.3
Filter rested from October 22 to 29, inclusive.															
Oct. 30	Oct. 31	-----	114.0	68.0	46.0	17.0	-----	-----	25.0	0.10	0.0	21.0	240,000	4.1
Nov. 1	Nov. 2	-----	59.0	37.0	22.0	14.0	-----	-----	23.0	0.70	2.0	22.0	350,000	3.8
Nov. 3	Nov. 4	13.0	46.0	28.0	18.0	13.0	-----	-----	24.0	0.60	2.0	30.0	640,000	-------
Filter rested from November 7 to 14, inclusive.															
Nov. 15	Nov. 16	8.0	56.0	36.0	20.0	23.0	-----	-----	25.0	1.40	3.0	25.0	340,000	4.2
Nov. 17	Nov. 18	12.0	48.0	32.0	16.0	11.0	-----	-----	23.0	0.60	0.0	24.0	490,000	3.9
Nov. 29	-----	12.0	34.0	28.0	6.0	16.0	-----	-----	22.0	0.40	3.0	22.0	---------	3.8
Dec. 11	Dec. 12	10.0	74.0	44.0	30.0	12.0	-----	-----	19.0	0.80	2.0	17.0	260,000	5.2
Dec. 13	Dec. 14	11.0	16.0	14.0	2.0	17.0	-----	-----	17.0	0.50	6.0	17.0	210,000	2.8
Dec. 15	Dec. 16	12.0	20.0	6.0	14.0	7.0	-----	-----	17.0	0.60	7.0	21.0	---------	3.7
Jan. 6	Jan. 8	6.3	22.0	16.0	6.0	12.0	7.0	5.0	16.0	0.60	4.0	20.0	110,000	4.5
Jan. 9	Jan. 11	6.0	25.0	21.0	4.0	5.0	4.0	1.0	16.0	0.40	4.0	15.0	---------	3.8
Jan. 16	Jan. 18	8.0	24.0	22.0	2.0	9.0	8.0	1.0	15.0	0.10	6.0	19.0	---------	3.4
Jan. 19	Jan. 21	9.0	27.0	25.0	2.0	11.0	7.0	4.0	19.0	0.00	4.0	27.0	---------	3.2
Feb. 3	Feb. 5	5.2	33.0	27.0	6.0	10.0	8.0	2.0	18.0	0.20	5.0	33.0	540,000	3.4
Feb. 6	Feb. 8	6.3	19.0	16.0	3.0	10.0	8.0	2.0	18.0	0.30	3.0	27.0	---------	3.4
Feb. 12	Feb. 14	7.7	28.0	16.0	12.0	9.0	8.0	1.0	14.0	0.40	2.0	20.0	280,000	4.4
Feb. 15	Feb. 17	7.8	54.0	40.0	14.0	10.0	8.0	2.0	16.0	0.60	4.0	32.0	350,000	4.1
Feb. 21	Feb. 23	6.5	26.0	20.0	6.0	8.0	5.0	3.0	17.0	0.15	5.0	21.0	---------	2.9
Feb. 24	Feb. 26	6.7	30.0	26.0	4.0	10.0	9.0	1.0	12.0	0.20	5.0	24.0	280,000	3.8
Feb. 29	Mar. 2	8.0	25.0	19.0	6.0	10.0	7.0	3.0	17.0	0.50	3.0	25.0	---------	3.3
Mar. 3	Mar. 5	7.8	31.0	29.0	2.0	13.0	10.0	3.0	16.0	0.20	4.0	23.0	220,000	3.1
Mar. 10	Mar. 12	7.5	39.0	26.0	13.0	11.0	9.0	2.0	14.0	0.30	3.0	25.0	---------	3.3
Mar. 13	Mar. 15	9.0	26.0	25.0	1.0	7.0	5.0	2.0	17.0	0.20	7.0	22.0	---------	3.2
Mar. 18	Mar. 23	8.6	29.0	25.0	4.0	12.0	10.0	2.0	15.0	0.20	5.0	18.0	260,000	3.1
Mar. 28	April 10	10.9	42.0	42.0	0.0	18.0	16.0	2.0	18.0	0.20	2.0	21.0	270,000	3.6
May 25	May 26	18.0	68.0	50.0	18.0	13.0	11.0	2.0	13.0	0.20	1.0	62.0	---------	-------
July 13	July 25	22.1	28.0	25.0	3.0	8.0	6.0	2.0	13.0	0.80	3.0	14.0	410,000	5.4
July 27	Aug. 8	22.6	38.0	23.0	15.0	6.0	4.0	2.0	12.0	1.10	5.0	13.0	620,000	4.9
Sept. 7	Sept. 19	19.5	22.0	20.0	2.0	9.0	8.0	1.0	17.0	0.50	2.0	18.0	390,000	4.8
Sept. 21	Oct. 3	19.2	30.0	25.0	5.0	6.0	5.0	1.0	16.0	0.40	2.5	19.0	400,000	5.2

TABLE No. 17.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed	Bacteria per C. C.	
						Organic			Free Ammonia	Nitrites	Nitrates			
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						
Effluent From Nine-foot Sprinkling Filter 2" to 4" Stone.														
Sept. 20	Sept. 21	20.0	21.0	12.0	9.0	13.0	12.0	1.0	16.0	0.18	0.8	13.0	3,800,000	3.5
Sept. 22	Sept. 23	-----	31.0	26.0	5.0	13.0	10.0	3.0	16.0	1.20	4.0	8.0	----------	3.0
Sept. 24	Sept. 25	19.5	27.0	19.0	8.0	18.0	17.0	1.0	11.0	0.90	5.0	12.0	800,000	3.8
Sept. 28	Sept. 29	-----	44.0	22.0	22.0	17.0	15.0	2.0	14.0	1.40	8.0	11.0	400,000	3.9
Sept. 30	Oct. 1	19.0	70.0	38.0	32.0	16.0	14.0	2.0	14.0	1.00	1.0	20.0	1,000,000	3.7
Oct. 2	Oct. 3	17.0	51.0	35.0	16.0	15.0	9.0	6.0	17.0	1.10	4.0	14.0	----------	3.7
Oct. 6	Oct. 7	18.0	91.0	47.0	44.0	9.0	7.0	2.0	21.0	1.80	4.0	21.0	480,000	1.4
Oct. 8	Oct. 9	17.0	108.0	68.0	40.0	10.0	6.0	4.0	17.0	1.10	4.0	21.0	260,000	2.4
Oct. 10	Oct. 11	17.0	52.0	30.0	22.0	6.0	6.0	0.0	20.0	1.20	5.0	16.0	250,000	3.3
Filter rested from October 22 to 29, inclusive.														
Oct. 30	Oct. 31	-----	152.0	84.0	68.0	19.0	-----	-----	21.0	0.10	0.0	28.0	360,000	4.1
Nov. 1	Nov. 2	-----	100.0	46.0	54.0	13.0	-----	-----	20.0	0.80	4.0	25.0	330,000	3.8
Nov. 3	Nov. 4	13.0	120.0	64.0	56.0	14.0	-----	-----	22.0	1.00	5.0	28.0	990,000	-------
Filter rested from November 7 to 14, inclusive.														
Nov. 15	Nov. 16	7.0	100.0	64.0	36.0	29.0	-----	-----	24.0	2.80	4.0	26.0	370,000	4.2
Nov. 17	Nov. 18	11.0	72.0	40.0	32.0	9.0	-----	-----	23.0	0.50	1.0	21.0	740,000	3.9
Nov. 29	-----	--	11.0	52.0	42.0	10.0	13.0	-----	-----	21.0	0.60	7.0	22.0	----------	3.8
Dec. 11	Dec. 12	8.3	62.0	50.0	12.0	13.0	-----	-----	16.0	1.20	4.0	15.0	300,000	5.2
Dec. 13	Dec. 14	8.0	38.0	22.0	16.0	22.0	-----	-----	14.0	0.50	9.0	17.0	270,000	2.8
Dec. 15	Dec. 16	8.0	34.0	12.0	22.0	6.0	-----	-----	15.0	0.60	9.0	16.0	----------	3.7
Jan. 6	Jan. 8	7.3	160.0	119.0	41.0	13.0	8.0	5.0	15.0	0.50	7.0	30.0	80,000	4.5
Jan. 9	Jan. 11	6.5	21.5	17.5	4.0	7.0	7.0	0.0	13.0	0.30	10.0	17.0	----------	3.8
Jan. 16	Jan. 18	7.0	21.0	20.0	1.0	9.0	8.0	1.0	12.0	0.10	10.0	17.0	----------	3.4
Jan. 19	Jan. 21	8.5	76.0	66.0	10.0	9.0	7.0	2.0	16.0	0.20	9.0	23.0	----------	3.2
Feb. 3	Feb. 5	4.3	42.0	34.0	8.0	8.0	6.0	2.0	16.0	0.20	10.0	29.0	450,000	3.4
Feb. 6	Feb. 8	5.2	34.0	30.0	4.0	9.0	7.0	2.0	16.0	0.10	7.0	24.0	----------	3.4
Feb. 12	Feb. 14	7.5	46.0	32.0	14.0	8.0	6.0	2.0	12.0	0.40	8.0	16.0	290,000	4.4
Feb. 15	Feb. 17	7.3	66.0	50.0	16.0	10.0	7.0	3.0	13.0	0.40	10.0	27.0	190,000	4.1
Feb. 21	Feb. 23	6.5	40.0	32.0	8.0	7.0	5.0	2.0	13.0	0.10	10.0	26.0	----------	2.9
Feb. 24	Feb. 26	6.7	42.0	35.0	7.0	10.0	8.0	2.0	10.0	0.15	8.0	19.0	930,000	3.8
Feb. 29	Mar. 2	8.0	52.0	40.0	12.0	10.0	9.0	1.0	13.0	0.40	10.0	21.0	----------	3.3
Mar. 3	Mar. 5	7.5	39.0	32.0	7.0	8.0	6.0	2.0	13.0	0.30	8.0	19.0	230,000	3.1
Mar. 10	Mar. 12	7.5	64.0	44.0	20.0	11.0	8.0	3.0	11.0	0.40	10.0	23.0	----------	3.3
Mar. 13	Mar. 15	9.0	75.0	56.0	19.0	8.0	7.0	1.0	13.0	0.20	20.0	29.0	----------	3.2
Mar. 18	Mar. 23	8.8	150.0	110.0	40.0	24.0	22.0	2.0	12.0	0.20	12.0	29.0	210,000	3.1
Mar. 28	April 10	10.9	156.0	124.0	32.0	23.0	17.0	6.0	15.0	0.40	15.0	28.0	400,000	3.6
May 25	May 26	18.0	61.0	53.0	8.0	14.0	12.0	2.0	11.0	0.40	5.0	66.0	----------	-------
July 13	July 25	22.1	51.0	39.0	12.0	8.0	6.0	2.0	10.0	1.60	8.0	13.0	640,000	5.4
July 27	Aug. 8	22.6	32.0	27.0	5.0	7.5	3.5	4.0	7.5	1.80	9.0	13.0	690,000	4.9
Sept. 7	Sept. 19	19.5	34.0	31.0	3.0	11.0	9.0	2.0	14.0	0.20	10.0	21.0	580,000	4.8
Sept. 21	Oct. 3	19.1	37.0	27.0	10.0	5.0	4.0	1.0	13.0	0.60	16.0	18.0	360,000	5.2

TABLE No. 18.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million												Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed	Bacteria per C. C.		
						Organic			Free Ammonia	Nitrites	Nitrates				
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.							
Settled Effluent From Nine-foot Sprinkling Filter 2" to 4" Stone.															
Sept. 20	Sept. 21	20.0	17.0	12.0	5.0	12.0	10.0	2.0	16.0	0.13	1.5	17.0	3,800,000		3.5
Sept. 22	Sept. 23	-----	27.0	22.0	5.0	11.0	11.0	0.0	16.0	1.00	5.0	7.0	----------		3.0
Sept. 24	Sept. 25	19.5	15.0	8.0	7.0	17.0	17.0	0.0	11.0	1.00	5.0	13.0	650,000		3.8
Sept. 28	Sept. 29	-----	14.0	14.0	0.0	17.0	12.0	5.0	14.0	1.40	6.0	8.0	390,000		3.9
Sept. 30	Oct. 1	19.0	33.0	20.0	13.0	12.0	12.0	0.0	14.0	0.90	3.0	22.0	150,000		3.7
Oct. 2	Oct. 3	17.0	78.0	69.0	9.0	11.0	8.0	3.0	18.0	0.80	3.0	11.0	----------		3.7
Oct. 6	Oct. 7	18.0	45.0	34.0	11.0	9.0	8.0	1.0	20.0	0.80	5.0	19.0	580,000		1.4
Oct. 8	Oct. 9	17.0	44.0	30.0	14.0	9.0	6.0	3.0	17.0	1.20	5.0	18.0	200,000		2.4
Oct. 10	Oct. 11	17.0	28.0	19.0	9.0	5.0	5.0	0.0	19.0	1.30	6.0	15.0	250,000		3.3
Filter rested from October 22 to 29, inclusive.															
Oct. 30	Oct. 31	-----	96.0	60.0	36.0	17.0	-----	-----	21.0	0.40	0.0	27.0	290,000		4.1
Nov. 1	Nov. 2	-----	58.0	36.0	22.0	12.0	-----	-----	20.0	0.80	4.0	20.0	200,000		3.8
Nov. 3	Nov. 4	13.0	40.0	26.0	14.0	14.0	-----	-----	21.0	1.00	5.0	22.0	340,000		-------
Filter rested from November 7 to 14, inclusive.															
Nov. 15	Nov. 16	7.0	140.0	76.0	64.0	22.0	-----	-----	24.0	2.80	4.0	30.0	410,000		4.2
Nov. 17	Nov. 18	11.0	50.0	26.0	24.0	18.0	-----	-----	22.0	0.60	1.0	23.0	450,000		3.9
Nov. 29	-----	--	11.0	36.0	30.0	6.0	11.0	-----	-----	21.0	0.60	8.0	21.0	----------	3.8
Dec. 11	Dec. 12	8.3	34.0	30.0	4.0	10.0	-----	-----	16.0	0.60	3.0	15.0	170,000		5.2
Dec. 13	Dec. 14	8.0	22.0	14.0	8.0	21.0	-----	-----	14.0	0.40	5.0	14.0	170,000		2.8
Dec. 15	Dec. 16	8.0	22.0	6.0	16.0	5.0	-----	-----	16.0	0.70	7.0	16.0	----------		3.7
Jan. 6	Jan. 8	7.3	26.0	22.0	4.0	8.0	6.0	2.0	16.0	0.40	7.0	22.0	130,000		4.5
Jan. 9	Jan. 11	6.5	16.0	11.0	5.0	7.0	7.0	0.0	13.0	0.60	8.0	13.0	----------		3.8
Jan. 16	Jan. 18	7.0	15.0	12.0	3.0	11.0	9.0	2.0	11.0	1.50	10.0	16.0	----------		3.4
Jan. 19	Jan. 21	8.5	20.0	18.0	2.0	10.0	7.0	3.0	15.0	0.10	9.0	21.0	----------		3.2
Feb. 3	Feb. 5	4.3	26.0	22.0	4.0	10.0	9.0	1.0	15.0	0.20	10.0	30.0	200,000		3.4
Feb. 6	Feb. 8	5.2	28.0	27.0	1.0	7.0	6.0	1.0	16.0	0.10	7.0	23.0	----------		3.4
Feb. 12	Feb. 14	7.5	24.5	17.0	7.5	8.0	7.0	1.0	11.0	0.40	8.0	15.0	180,000		4.4
Feb. 15	Feb. 17	7.3	28.5	20.5	8.0	10.0	8.0	2.0	13.0	0.60	8.0	25.0	330,000		4.1
Feb. 21	Feb. 23	6.5	21.0	14.0	7.0	8.0	7.0	1.0	13.0	0.80	12.0	24.0	----------		2.9
Feb. 24	Feb. 26	6.7	26.5	19.0	7.5	8.0	7.0	1.0	10.0	0.10	7.0	20.0	180,000		3.8
Feb. 29	Mar. 2	8.0	22.0	15.5	6.5	7.0	6.0	1.0	14.0	0.30	10.0	21.0	----------		3.3
Mar. 3	Mar. 5	7.5	20.0	14.5	5.5	8.0	6.0	2.0	13.0	0.40	8.0	19.0	140,000		3.1
Mar. 10	Mar. 12	7.5	23.0	15.5	7.5	10.0	7.0	3.0	11.0	0.30	10.0	20.0	----------		3.3
Mar. 13	Mar. 14	**9.0**	23.5	20.0	3.5	8.0	7.0	1.0	13.0	0.20	15.0	20.0	----------		3.2
Mar. 18	Mar. 23	8.8	38.0	28.0	10.0	12.0	10.0	2.0	12.0	0.20	15.0	19.0	160,000		3.1
Mar. 28	April 10	10.9	42.0	30.0	12.0	21.0	15.0	6.0	15.0	0.30	10.0	19.0	170,000		3.6
May 25	May 26	18.0	49.0	46.0	3.0	13.0	11.0	2.0	11.0	0.20	2.0	62.0	----------		-------
July 13	July 25	22.1	27.0	20.0	7.0	7.0	6.0	1.0	10.0	1.30	8.0	14.0	230,000		5.4
July 27	Aug. 8	22.6	21.0	21.0	0.0	3.5	2.5	1.0	7.5	1.80	9.0	14.0	300,000		4.9
Sept. 7	Sept. 19	19.5	17.0	16.0	1.0	8.0	7.0	1.0	14.0	0.20	9.0	19.0	230,000		4.8
Sept. 21	Oct. 3	19.1	24.0	20.0	4.0	5.0	4.0	1.0	12.0	0.60	15.0	18.0	300,000		5.2

TABLE No. 19.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed			
						Organic			Free Ammonia	Nitrites	Nitrates				
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.							
Effluent From Twelve-foot Sprinkling Filter 2" to 4" Stone.															
Sept. 20	Sept. 21	20.0	45.0	28.0	17.0	13.0	10.0	3.0	16.0	0.25	1.0	20.0	4,800,000	3.5
Sept. 22	Sept. 23	-----	46.0	33.0	13.0	17.0	14.0	3.0	16.0	1.30	5.0	10.0	----------	3.0
Sept. 24	Sept. 25	19.5	33.0	19.0	14.0	18.0	17.0	1.0	11.0	0.90	5.0	12.0	550,000	3.8
Sept. 28	Sept. 29	-----	31.0	21.0	10.0	12.0	9.0	3.0	13.0	1.60	6.0	9.0	420,000	3.9
Sept. 30	Oct. 1	19.0	57.0	27.0	30.0	13.0	12.0	1.0	12.0	1.20	3.0	16.0	160,000	3.7
Oct. 2	Oct. 3	16.0	60.0	32.0	28.0	11.0	11.0	0.0	15.0	1.20	5.0	15.0	----------	3.7
Oct. 6	Oct. 7	18.0	88.0	49.0	39.0	9.0	7.0	2.0	18.0	1.80	5.0	24.0	190,000	1.4
Oct. 8	Oct. 9	18.0	92.0	48.0	44.0	9.0	6.0	3.0	16.0	1.20	5.0	20.0	180,000	2.4
Oct. 10	Oct. 11	16.5	48.0	24.0	24.0	5.0	4.0	1.0	18.0	1.60	9.0	18.0	210,000	3.3
Filter rested from October 22 to 29, inclusive.															
Oct. 30	Oct. 31	-----	102.0	74.0	28.0	17.0	-----	-----	20.0	0.20	0.0	24.0	260,000	4.1
Nov. 1	Nov. 2	-----	76.0	38.0	38.0	13.0	-----	-----	18.0	1.60	4.0	18.0	340,000	3.8
Nov. 3	Nov. 4	13.0	60.0	32.0	28.0	13.0	-----	-----	20.0	1.00	5.0	26.0	490,000	-------
Filter rested from November 7 to 14, inclusive.															
Nov. 15	Nov. 16	7.0	140.0	76.0	64.0	24.0	-----	-----	23.0	4.40	9.0	31.0	350,000	4.2
Nov. 17	Nov. 18	11.0	76.0	38.0	38.0	10.0	-----	-----	20.0	0.80	1.0	20.0	430,000	3.9
Nov. 29	-----	11.0	50.0	30.0	20.0	11.0	-----	-----	19.0	0.50	15.0	19.0	----------	3.8
Dec. 11	Dec. 12	9.0	48.0	38.0	10.0	12.0	-----	-----	15.0	0.80	7.0	15.0	210,000	5.2
Dec. 13	Dec. 14	9.0	30.0	20.0	10.0	17.0	-----	-----	13.0	0.40	8.0	12.0	220,000	2.8
Dec. 15	Dec. 16	9.0	32.0	10.0	22.0	8.0	-----	-----	13.0	0.60	12.0	15.0	----------	3.7
Jan. 6	Jan. 8	5.0	48.0	34.0	14.0	9.0	7.0	2.0	12.0	0.40	12.0	23.0	250,000	4.5
Jan. 9	Jan. 11	6.5	19.0	10.5	8.5	12.0	12.0	0.0	8.5	0.30	12.0	13.0	----------	3.8
Jan. 16	Jan. 18	7.0	26.0	24.0	2.0	9.5	6.5	3.0	9.5	0.00	15.0	14.0	----------	3.4
Jan. 19	Jan. 21	8.0	33.0	30.0	3.0	2.0	2.0	0.0	19.0	0.20	15.0	19.0	----------	3.2
Feb. 3	Feb. 5	4.7	46.0	41.0	5.0	7.0	6.0	1.0	15.0	0.30	12.0	30.0	250,000	3.4
Feb. 6	Feb. 8	4.8	31.0	26.0	5.0	7.0	6.0	1.0	14.0	0.10	8.0	21.0	----------	3.4
Feb. 12	Feb. 14	7.3	36.0	22.0	14.0	8.0	6.0	2.0	11.0	0.30	10.0	16.0	210,000	4.4
Feb. 15	Feb. 17	7.5	50.0	36.0	14.0	9.0	8.0	1.0	13.0	0.40	10.0	25.0	180,000	4.1
Feb. 21	Feb. 23	6.0	36.0	24.0	12.0	8.0	6.0	2.0	12.0	0.15	12.0	22.0	----------	2.9
Feb. 24	Feb. 26	6.7	37.0	31.0	6.0	8.5	7.5	1.0	7.5	0.10	10.0	19.0	330,000	3.8
Feb. 29	Mar. 2	7.5	24.0	20.0	4.0	7.0	6.0	1.0	13.0	0.40	12.0	18.0	----------	3.3
Mar. 3	Mar. 5	7.5	26.0	21.0	5.0	9.0	8.0	1.0	11.0	0.20	12.0	20.0	240,000	3.1
Mar. 10	Mar. 12	7.3	45.0	29.0	16.0	9.0	8.0	1.0	10.0	0.20	12.0	20.0	----------	3.3
Mar. 13	Mar. 15	7.0	66.0	48.0	18.0	9.0	8.0	1.0	12.0	0.20	20.0	26.0	----------	3.2
Mar. 18	Mar. 23	8.8	78.0	63.0	15.0	13.0	11.0	2.0	10.0	0.20	15.0	24.0	160,000	3.1
Mar. 28	April 10	11.1	56.0	46.0	10.0	21.0	19.0	2.0	11.0	0.40	20.0	22.0	180,000	3.6
May 25	May 26	18.0	90.0	73.0	17.0	15.0	10.0	5.0	11.0	0.80	10.0	20.0	----------	-------
July 13	July 25	22.0	40.0	33.0	7.0	6.5	5.5	1.0	8.5	0.80	15.0	17.0	320,000	5.4
July 27	Aug. 8	22.6	57.0	23.0	34.0	6.0	4.0	2.0	4.0	1.80	22.0	14.0	350,000	4.9
Sept. 7	Sept. 19	19.4	33.0	29.0	4.0	9.0	7.0	2.0	12.0	0.40	15.0	19.0	390,000	4.8
Sept. 21	Oct. 3	19.0	30.0	23.0	7.0	6.0	5.5	1.0	10.0	1.40	17.0	19.0	280,000	5.2

TABLE No. 20.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed	Bacteria per C. C.	
						Organic			Free Ammonia	Nitrites	Nitrates			
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						
Settled Effluent From Twelve-foot Sprinkling Filter 2" to 4" Stone.														
Sept. 20	Sept. 21	20.0	10.0	4.0	6.0	11.0	9.0	2.0	16.0	0.23	1.5	14.0	3,600,000	3.5
Sept. 22	Sept. 23	-----	22.0	21.0	1.0	13.0	13.0	0.0	16.0	1.60	5.0	7.0	----------	3.0
Sept. 24	Sept. 25	19.5	22.0	7.0	15.0	14.0	14.0	0.0	11.0	1.20	8.0	9.0	550,000	3.8
Sept. 28	Sept. 29	-----	9.0	8.0	1.0	12.0	11.0	1.0	13.0	1.60	6.0	8.0	300,000	3.9
Sept. 30	Oct. 1	19.0	26.0	16.0	10.0	12.0	11.0	1.0	12.0	1.00	4.0	16.0	90,000	3.7
Oct. 2	Oct. 3	16.0	30.0	21.0	9.0	10.0	9.0	1.0	16.0	1.10	6.0	11.0	----------	3.7
Oct. 6	Oct. 7	18.0	36.0	27.0	9.0	8.0	7.0	1.0	18.0	1.30	6.0	17.0	130,000	1.4
Oct. 8	Oct. 9	18.0	42.0	26.0	16.0	8.0	5.0	3.0	16.0	1.20	8.0	13.0	140,000	2.4
Oct. 10	Oct. 11	16.5	24.0	14.0	10.0	4.0	4.0	0.0	18.0	1.60	8.0	11.0	170,000	3.3
Filter rested from October 22 to 29, inclusive.														
Oct. 30	Oct. 31	-----	80.0	50.0	30.0	15.0	-----	-----	20.0	0.50	0.2	21.0	300,000	4.1
Nov. 1	Nov. 2	-----	37.0	19.0	18.0	12.0	-----	-----	18.0	0.60	4.0	16.0	260,000	3.8
Nov. 3	Nov. 4	13.0	22.0	12.0	10.0	11.0	-----	-----	20.0	1.00	5.0	23.0	370,000	-------
Filter rested from November 7 to 14, inclusive.														
Nov. 15	Nov. 16	7.0	112.0	52.0	60.0	23.0	-----	-----	25.0	2.86	10.0	27.0	260,000	4.2
Nov. 17	Nov. 18	11.0	54.0	26.0	28.0	9.0	-----	-----	21.0	0.60	1.0	18.0	310,000	3.9
Nov. 29	-----	11.0	36.0	30.0	6.0	12.0	-----	-----	19.0	0.60	15.0	15.0	----------	3.8
Dec. 11	Dec. 12	9.0	30.0	26.0	4.0	9.0	-----	-----	15.0	0.40	10.0	11.0	200,000	5.2
Dec. 13	Dec. 14	9.0	24.0	18.0	6.0	18.0	-----	-----	14.0	0.40	12.0	13.0	150,000	2.8
Dec. 15	Dec. 16	9.0	24.0	8.0	16.0	8.0	-----	-----	13.0	0.70	10.0	14.0	----------	3.7
Jan. 6	Jan. 8	5.0	24.0	22.0	2.0	7.0	6.0	1.0	13.0	0.30	10.0	18.0	70,000	4.5
Jan. 9	Jan. 11	6.5	16.0	10.0	6.0	8.0	8.0	0.0	8.0	0.40	12.0	11.0	----------	3.8
Jan. 16	Jan. 18	7.0	20.0	18.0	2.0	9.5	9.5	0.0	9.5	0.00	15.0	14.0	----------	3.4
Jan. 19	Jan. 21	8.0	22.0	18.0	4.0	3.0	2.0	1.0	19.0	0.10	15.0	18.0	----------	3.2
Feb. 3	Feb. 5	4.7	28.0	26.0	2.0	10.0	8.0	2.0	14.0	0.20	12.0	23.0	160,000	3.4
Feb. 6	Feb. 8	4.8	36.0	32.0	4.0	9.0	8.0	1.0	13.0	0.10	8.0	18.0	----------	3.4
Feb. 12	Feb. 14	7.3	25.0	16.0	9.0	7.0	5.0	2.0	11.0	0.30	10.0	15.0	310,000	4.4
Feb. 15	Feb. 17	7.5	28.0	19.0	9.0	9.0	7.0	2.0	13.0	0.40	10.0	21.0	160,000	4.1
Feb. 21	Feb. 23	6.0	19.0	15.0	4.0	6.0	4.0	2.0	13.0	0.10	12.0	17.0	----------	2.9
Feb. 24	Feb. 26	6.7	21.5	15.5	6.0	7.5	7.5	0.0	7.5	0.10	10.0	15.0	100,000	3.8
Feb. 29	Mar. 2	7.5	14.5	11.0	3.5	7.0	6.0	1.0	13.0	0.20	12.0	15.0	----------	3.3
Mar. 3	Mar. 5	7.5	16.5	13.0	3.5	8.0	8.0	0.0	11.0	0.20	12.0	16.0	120,000	3.1
Mar. 10	Mar. 12	7.3	21.0	18.5	2.5	8.5	7.5	1.0	9.5	0.30	12.0	17.0	----------	3.3
Mar. 13	Mar. 15	9.0	18.5	16.5	2.0	7.0	6.0	1.0	12.0	0.20	20.0	14.0	----------	3.2
Mar. 18	Mar. 23	8.8	18.0	14.0	4.0	11.0	7.0	4.0	36.0	0.25	15.0	15.0	160,000	3.1
Mar. 28	April 10	11.1	28.0	28.0	0.0	19.0	17.0	2.0	11.0	0.30	10.0	18.0	160,000	3.6
May 25	May 26	18.0	63.0	54.0	9.0	12.0	10.0	2.0	11.0	0.60	8.0	52.0	----------	------
July 13	July 25	22.0	31.0	23.0	8.0	5.5	4.5	1.0	8.5	2.00	10.0	8.0	280,000	5.4
July 27	Aug. 8	22.6	20.0	11.0	9.0	4.0	4.0	0.0	4.0	1.60	20.0	11.0	210,000	4.9
Sept. 7	Sept. 19	19.4	15.0	14.0	1.0	7.0	6.0	1.0	12.0	0.30	12.0	13.0	220,000	4.8
Sept. 21	Oct. 3	19.0	32.0	26.0	6.0	5.0	3.0	2.0	11.0	1.00	17.0	15.0	290,000	5.2

TABLE No. 21.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as										
						Organic			Free Ammonia	Nitrites	Nitrates					
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.								
Effluent From Six-foot Sprinkling Filter 4" to 6" Stone.																
Sept. 20	Sept. 21	20.0	22.0	19.0	3.0	11.0	10.0	1.0	18.0	0.07	0.0	21.0	3,200,000		3.5
Sept. 22	Sept. 23	-----	55.0	39.0	16.0	16.0	14.0	2.0	17.0	0.40	0.0	16.0	----------		3.0
Sept. 24	Sept. 25	19.0	41.0	25.0	16.0	17.0	16.0	1.0	12.0	0.70	5.0	16.0	1,600,000		3.8
Sept. 28	Sept. 29	-----	23.0	20.0	3.0	15.0	8.0	7.0	16.0	1.10	2.0	14.0	780,000		3.9
Sept. 30	Oct. 1	19.0	84.0	23.0	11.0	13.0	11.0	2.0	17.0	0.30	0.0	30.0	130,000		3.7
Oct. 2	Oct. 3	17.0	58.0	38.0	20.0	13.0	10.0	3.0	20.0	0.00	0.0	25.0	----------		3.7
Oct. 6	Oct. 7	18.0	152.0	83.0	69.0	13.0	10.0	3.0	25.0	0.00	0.0	33.0	120,000		1.4
Oct. 8	Oct. 9	16.0	172.0	112.0	60.0	15.0	7.0	8.0	21.0	0.10	0.0	37.0	350,000		2.4
Oct. 10	Oct. 11	16.5	89.0	58.0	31.0	8.0	4.0	4.0	25.0	0.30	0.0	26.0	470,000		3.3
Filter rested from October 22 to 29, inclusive.																
Oct. 30	Oct. 31	-----	106.0	68.0	38.0	21.0	----	-----	24.0	0.00	0.0	39.0	570,000		4.1
Nov. 1	Nov. 2	-----	22.0	20.0	2.0	16.0	-----	-----	23.0	0.00	1.0	30.0	680,000		3.8
Nov. 3	Nov. 4	13.0	78.0	56.0	22.0	15.0	-----	-----	23.0	0.40	1.0	35.0	610,000		-------
Filter rested from November 7 to 14, inclusive.																
Nov. 15	Nov. 16	7.0	156.0	132.0	24.0	24.0	-----	-----	26.0	0.20	0.0	33.0	1,100,000		4.2
Nov. 17	Nov. 18	11.0	62.0	56.0	6.0	13.0	-----	-----	23.0	1.10	0.0	25.0	1,300,000		3.9
Nov. 29	--------	11.0	58.0	44.0	14.0	16.0	-----	-----	22.0	0.20	2.0	34.0	----------		3.8
Dec. 11	Dec. 12	8.1	66.0	58.0	8.0	14.0	-----	-----	19.0	0.10	0.0	25.0	530,000		5.2
Dec. 13	Dec. 14	8.0	34.0	30.0	4.0	18.0	-----	-----	17.0	0.20	2.0	22.0	790,000		2.8
Dec. 15	Dec. 16	8.0	58.0	42.0	16.0	7.0	-----	-----	18.0	0.30	6.0	24.0	----------		3.7
Jan. 6	Jan. 8	6.0	96.0	75.0	21.0	12.0	6.0	6.0	21.0	0.30	1.0	65.0	360,000		4.5
Jan. 9	Jan. 11	5.5	49.0	47.0	2.0	4.0	3.0	1.0	18.0	0.20	3.0	22.0	----------		3.7
Jan. 16	Jan. 18	7.0	34.0	28.0	6.0	9.0	8.0	1.0	17.0	0.00	2.0	28.0	----------		3.4
Jan. 19	Jan. 21	8.5	63.5	54.0	9.5	14.0	9.0	5.0	22.0	0.00	1.0	40.0	----------		3.2
Feb. 3	Feb. 5	4.8	64.0	58.0	6.0	12.0	8.0	4.0	20.0	0.10	1.0	43.0	730,000		3.4
Feb. 6	Feb. 8	5.3	72.0	66.0	6.0	14.0	10.0	4.0	18.0	0.05	1.0	42.0	----------		3.4
Feb. 12	Feb. 14	7.5	106.0	78.0	28.0	14.0	10.0	4.0	15.0	0.25	1.0	34.0	760,000		4.4
Feb. 15	Feb. 17	7.3	108.0	84.0	24.0	13.0	10.0	3.0	18.0	0.20	1.0	44.0	1,000,000		4.1
Feb. 21	Feb. 23	6.0	90.0	76.0	14.0	10.0	8.0	2.0	18.0	0.10	3.0	41.0	----------		2.9
Feb. 24	Feb. 26	6.5	124.0	99.0	25.0	11.0	8.0	3.0	15.0	0.10	1.0	42.0	770,000		3.8
Feb. 29	Mar. 2	8.0	99.0	82.0	17.0	12.0	10.0	2.0	19.0	0.20	0.0	44.0	----------		3.3
Mar. 3	Mar. 5	7.2	90.0	80.0	10.0	11.0	8.0	3.0	18.0	0.10	1.0	37.0	560,000		3.1

TABLE No. 22.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed			
						Organic			Free Ammonia	Nitrites	Nitrates				
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.							
Settled Effluent From Six-foot Sprinkling Filter 4" to 6" Stone.															
Sept. 20	Sept. 21	20.0	10.0	10.0	0.0	11.0	10.0	1.0	17.0	0.08	0.0	20.0	3,600,000	3.5	
Sept. 22	Sept. 23	-----	39.0	35.0	4.0	16.0	15.0	1.0	17.0	1.20	0.0	14.0	---------	3.0	
Sept. 24	Sept. 25	19.0	38.0	26.0	12.0	17.0	15.0	2.0	12.0	0.70	5.0	16.0	1,300,000	3.8	
Sept. 28	Sept. 29	-----	34.0	32.0	2.0	14.0	9.0	5.0	16.0	1.20	3.0	14.0	1,000,000	3.9	
Sept. 30	Oct. 1	19.0	31.0	30.0	1.0	14.0	12.0	2.0	16.0	0.30	0.0	28.0	170,000	3.7	
Oct. 2	Oct. 3	17.0	39.0	32.0	7.0	21.0	20.0	1.0	20.0	0.00	0.0	20.0	---------	3.7	
Oct. 6	Oct. 7	18.0	64.0	42.0	22.0	12.0	10.0	2.0	24.0	0.10	0.0	29.0	170,000	1.4	
Oct. 8	Oct. 9	16.0	73.0	51.0	22.0	11.0	7.0	4.0	21.0	0.10	0.0	31.0	480,000	2.4	
Oct. 10	Oct. 11	16.5	48.0	33.0	15.0	8.0	6.0	2.0	24.0	0.30	1.0	23.0	450,000	3.3	
Filter rested from October 22 to 29, inclusive.															
Oct. 30	Oct. 31	-----	92.0	54.0	38.0	11.0	-----	-----	24.0	0.10	0.0	33.0	590,000	4.1	
Nov. 1	Nov. 2	-----	42.0	30.0	12.0	15.0	-----	-----	23.0	0.00	1.0	32.0	1,000,000	3.8	
Nov. 3	Nov. 4	13.0	50.0	38.0	12.0	15.0	-----	-----	22.0	1.00	3.0	36.0	830,000	-------	
Filter rested from November 7 to 14, inclusive.															
Nov. 15	Nov. 16	7.0	64.0	52.0	12.0	23.0	-----	-----	26.0	0.40	1.0	34.0	1,300,000	4.2	
Nov. 17	Nov. 18	11.0	56.0	44.0	12.0	13.0	-----	-----	23.0	0.70	0.0	29.0	1,500,000	3.9	
Nov. 29	--------	11.0	40.0	34.0	6.0	17.0	-----	-----	22.0	0.10	2.0	34.0	---------	3.8	
Dec. 11	Dec. 12	8.1	50.0	38.0	12.0	15.0	-----	-----	19.0	0.10	0.0	26.0	560,000	5.2	
Dec. 13	Dec. 14	8.0	26.0	18.0	8.0	20.0	-----	-----	17.0	0.30	2.0	22.0	710,000	2.8	
Dec. 15	Dec. 16	8.0	30.0	20.0	10.0	8.0	-----	-----	18.0	0.30	3.0	29.0	---------	3.7	
Jan. 6	Jan. 8	6.0	45.0	42.0	3.0	11.0	8.0	3.0	20.0	0.30	1.0	32.0	1,000,000	4.5	
Jan. 9	Jan. 11	5.5	26.5	20.5	6.0	6.0	5.0	1.0	16.0	0.30	3.0	21.0	---------	3.7	
Jan. 16	Jan. 18	7.0	24.0	20.0	4.0	10.0	8.0	2.0	17.0	0.05	2.0	26.0	---------	3.4	
Jan. 19	Jan. 21	8.5	42.0	35.0	7.0	16.0	10.0	6.0	21.0	0.00	1.0	35.0	---------	3.2	
Feb. 3	Feb. 5	4.8	30.0	28.0	2.0	13.0	12.0	1.0	19.0	0.10	1.0	41.0	930,000	3.4	
Feb. 6	Feb. 8	5.3	39.0	35.0	4.0	13.0	10.0	3.0	18.0	0.05	1.0	35.0	---------	3.4	
Feb. 12	Feb. 14	7.5	58.0	48.0	10.0	13.0	11.0	2.0	14.0	0.20	1.0	26.0	---------	4.4	
Feb. 15	Feb. 17	7.3	62.0	46.0	16.0	14.0	11.0	3.0	17.0	0.20	1.0	37.0	260,000	4.1	
Feb. 21	Feb. 23	6.0	50.0	40.0	10.0	10.0	8.0	2.0	18.0	0.10	3.0	31.0	---------	2.9	
Feb. 24	Feb. 26	6.5	43.5	30.5	13.0	11.0	7.0	4.0	15.0	0.10	1.0	31.0	500,000	3.8	
Feb. 29	Mar. 2	8.0	22.5	19.0	3.5	12.0	10.0	2.0	18.0	0.20	0.0	38.0	---------	3.3	
Mar. 3	Mar. 5	7.2	29.0	24.5	4.5	11.0	8.0	3.0	18.0	0.10	1.0	33.0	380,000	3.1	

TABLE No. 23

Period Covered 1907-8 From	To	Temp. Degrees Cent.	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp.	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
Effluent From Nine-foot Sprinkling Filter 4" to 6" Stone.														
Sept. 20	Sept. 21	20.0	57.0	44.0	13.0	12.0	8.0	4.0	18.0	0.09	0.2	20.0	3,600,000	3.5
Sept. 22	Sept. 23	-----	44.0	36.0	8.0	16.0	15.0	1.0	17.0	0.80	4.0	10.0	----------	3.0
Sept. 24	Sept. 25	19.0	35.0	24.0	11.0	18.0	14.0	4.0	12.0	0.70	5.0	14.0	1,300,000	3.8
Sept. 28	Sept. 29	-----	29.0	25.0	4.0	10.0	10.0	0.0	15.0	1.10	5.0	9.0	920,000	3.9
Sept. 30	Oct. 1	19.0	65.0	42.0	23.0	18.0	15.0	3.0	14.0	0.50	1.0	23.0	490,000	3.7
Oct. 2	Oct. 3	16.0	54.0	38.0	16.0	12.0	9.0	3.0	20.0	0.30	0.0	14.0	----------	3.7
Oct. 6	Oct. 7	17.0	125.0	78.0	47.0	12.0	8.0	4.0	24.0	0.00	0.0	27.0	220,000	1.4
Oct. 8	Oct. 9	17.0	162.0	102.0	60.0	12.0	7.0	5.0	21.0	0.20	0.0	24.0	340,000	2.4
Oct. 10	Oct. 11	15.0	86.0	52.0	34.0	7.0	6.0	1.0	24.0	0.40	2.0	21.0	470,000	3.3
Filter rested from October 22 to 29, inclusive.														
Oct. 30	Oct. 31	-----	112.0	72.0	40.0	20.0	-----	-----	23.0	0.00	0.0	28.0	540,000	4.1
Nov. 1	Nov. 2	-----	54.0	28.0	26.0	13.0	-----	-----	22.0	0.20	2.0	23.0	350,000	3.8
Nov. 3	Nov. 4	13.0	56.0	38.0	18.0	14.0	-----	-----	22.0	1.80	5.0	28.0	750,000	----------
Filter rested from November 7 to 14, inclusive.														
Nov. 15	Nov. 16	5.0	124.0	104.0	20.0	26.0	-----	-----	26.0	0.40	0.0	30.0	850,000	4.2
Nov. 17	Nov. 18	10.0	54.0	42.0	12.0	12.0	-----	-----	22.0	0.60	0.0	25.0	1,100,000	3.9
Nov. 29	-----	--	11.0	60.0	46.0	14.0	15.0	-----	-----	22.0	0.40	4.0	26.0	----------	3.8
Dec. 11	Dec. 12	8.5	52.0	40.0	12.0	13.0	-----	-----	19.0	1.00	3.0	16.0	440,000	5.2
Dec. 13	Dec. 14	9.0	30.0	22.0	8.0	14.0	-----	-----	18.0	0.30	2.0	15.0	550,000	2.8
Dec. 15	Dec. 16	9.0	38.0	22.0	16.0	7.0	-----	-----	18.0	0.80	3.0	16.0	----------	3.7
Jan. 6	Jan. 8	4.7	55.0	46.0	9.0	11.0	8.0	3.0	19.0	0.30	3.0	28.0	270,000	4.5
Jan. 9	Jan. 11	5.5	28.0	19.0	9.0	5.0	4.0	1.0	16.0	0.40	5.0	18.0	----------	3.8
Jan. 16	Jan. 18	6.0	49.0	41.0	8.0	15.0	11.0	4.0	16.0	0.05	5.0	21.0	----------	3.4
Jan. 19	Jan. 21	7.5	63.0	50.0	13.0	12.0	10.0	2.0	21.0	0.00	1.0	28.0	----------	3.2
Feb. 3	Feb. 5	4.3	46.0	42.0	4.0	11.0	10.0	1.0	18.0	0.10	2.0	37.0	520,000	3.4
Feb. 6	Feb. 8	4.5	48.0	43.0	5.0	9.0	7.0	2.0	19.0	0.05	1.0	28.0	----------	3.4
Feb. 12	Feb. 14	7.0	51.0	36.0	15.0	10.0	8.0	2.0	14.0	0.25	1.0	25.0	730,000	4.4
Feb. 15	Feb. 17	7.3	48.0	40.0	8.0	11.0	8.0	3.0	17.0	0.20	1.0	28.0	580,000	4.1
Feb. 21	Feb. 23	6.0	40.0	30.0	10.0	7.0	6.0	1.0	18.0	0.15	5.0	28.0	----------	2.9
Feb. 24	Feb. 26	6.3	43.0	34.0	9.0	10.0	8.0	2.0	15.0	0.60	1.0	26.0	80,000	3.8
Feb. 29	Mar. 2	7.5	37.0	32.0	5.0	9.0	8.0	2.0	18.0	0.40	2.0	25.0	----------	3.3
Mar. 3	Mar. 5	6.8	39.0	31.0	8.0	9.0	7.0	2.0	17.0	0.20	1.0	28.0	190,000	3.1

TABLE No. 24.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million												Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed	Bacteria per C. C.		
						Organic			Free Ammonia	Nitrites	Nitrates				
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.							
Settled Effluent From Nine-foot Sprinkling Filter 4" to 6" Stone															
Sept. 20	Sept. 21	20.0	16.0	11.0	5.0	11.0	10.0	1.0	18.0	0.10	0.0	19.0	3,000,000		3.5
Sept. 22	Sept. 23	-----	32.0	28.0	4.0	17.0	14.0	3.0	17.0	0.80	4.0	11.0	----------		3.0
Sept. 24	Sept. 25	19.0	31.0	16.0	15.0	17.0	14.0	3.0	12.0	0.70	5.0	15.0	1,000,000		3.8
Sept. 28	Sept. 29	-----	6.0	2.0	4.0	16.0	8.0	8.0	15.0	0.90	5.0	13.0	540,000		3.9
Sept. 30	Oct. 1	19.0	14.0	11.0	3.0	12.0	10.0	2.0	16.0	0.40	0.0	18.0	140,000		3.7
Oct. 2	Oct. 3	16.0	29.0	25.0	4.0	12.0	10.0	2.0	19.0	0.20	0.0	18.0	----------		3.7
Oct. 6	Oct. 7	17.0	51.0	40.0	11.0	9.0	9.0	0.0	23.0	0.20	0.0	20.0	260,000		1.4
Oct. 8	Oct. 9	17.0	65.0	47.0	18.0	11.0	11.0	0.0	20.0	0.40	0.0	22.0	440,000		2.4
Oct. 10	Oct. 11	15.0	49.0	37.0	12.0	7.0	6.0	1.0	24.0	0.60	2.0	19.0	470,000		3.3
Filter rested from October 22 to 29, inclusive.															
Oct. 30	Oct. 31	-----	86.0	48.0	38.0	20.0	-----	-----	24.0	0.10	0.0	29.0	640,000		4.1
Nov. 1	Nov. 2	-----	36.0	23.0	13.0	14.0	-----	-----	23.0	0.20	2.0	24.0	320,000		3.8
Nov. 3	Nov. 4	13.0	30.0	24.0	6.0	11.0	-----	-----	23.0	1.60	5.0	23.0	610,000		-------
Filter rested from November 7 to 14, inclusive.															
Nov. 15	Nov. 16	5.0	92.0	72.0	20.0	22.0	-----	-----	26.0	0.20	0.0	32.0	950,000		4.2
Nov. 17	Nov. 18	10.0	64.0	48.0	16.0	13.0	-----	-----	23.0	0.50	0.0	22.0	790,000		3.9
Nov. 29	-----	--	11.0	34.0	26.0	8.0	14.0	-----	-----	22.0	0.40	4.0	24.0	----------	3.8
Dec. 11	Dec. 12	8.5	44.0	36.0	8.0	11.0	-----	-----	19.0	0.80	1.0	19.0	320,000		5.2
Dec. 13	Dec. 14	9.0	32.0	24.0	8.0	16.0	-----	-----	17.0	0.30	5.0	18.0	390,000		2.8
Dec. 15	Dec. 16	9.0	32.0	12.0	20.0	6.0	-----	-----	18.0	0.60	7.0	20.0	----------		3.7
Jan. 6	Jan. 8	4.7	26.0	24.0	2.0	10.0	7.0	3.0	19.0	0.30	3.0	25.0	250,000		1.5
Jan. 9	Jan. 11	5.5	20.0	15.0	5.0	5.0	4.0	1.0	17.0	0.50	5.0	16.0	----------		3.7
Jan. 16	Jan. 18	6.0	26.0	18.0	8.0	15.0	10.0	5.0	15.0	0.10	5.0	18.0	----------		3.4
Jan. 19	Jan. 21	7.5	47.0	41.5	5.5	12.0	9.0	3.0	21.0	0.10	1.0	27.0	----------		3.2
Feb. 3	Feb. 5	4.3	30.0	29.0	1.0	14.0	11.0	3.0	18.0	0.10	2.0	38.0	620,000		3.4
Feb. 6	Feb. 8	4.5	36.0	34.0	2.0	9.0	8.0	1.0	19.0	0.05	1.0	30.0	----------		3.4
Feb. 12	Feb. 14	7.0	29.0	21.0	8.0	10.0	8.0	2.0	14.0	0.20	1.0	22.0	430,000		4.4
Feb. 15	Feb. 17	7.3	29.0	22.0	7.0	9.0	8.0	1.0	17.0	0.40	2.0	28.0	640,000		4.1
Feb. 21	Feb. 23	6.0	26.0	21.0	5.0	8.0	7.0	1.0	18.0	0.15	5.0	24.0	----------		2.9
Feb. 24	Feb. 26	6.3	23.5	20.0	3.5	8.0	7.0	1.0	15.0	0.60	1.0	24.0	500,000		3.8
Feb. 29	Mar. 2	7.5	21.0	17.5	3.5	9.0	8.0	1.0	18.0	0.30	2.0	31.0	----------		3.3
Mar. 3	Mar. 5	6.8	28.5	22.5	6.0	10.0	8.0	2.0	17.0	0.10	1.0	25.0	330,000		3.1

TABLE No. 25.

Period Covered 1907-8 From	To	Temp. Degrees Cent.	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp.	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
Effluent From Twelve-foot Sprinkling Filter 4" to 6" Stone														
Sept. 20	Sept. 21	20.0	29.0	28.0	1.0	14.0	11.0	3.0	16.0	0.22	0.0	15.0	3,500,000	3.5
Sept. 22	Sept. 23	-----	34.0	30.0	4.0	14.0	13.0	1.0	16.0	0.80	5.0	9.0	----------	3.0
Sept. 24	Sept. 25	19.0	17.0	13.0	4.0	18.0	16.0	2.0	11.0	0.80	5.0	13.0	850,000	3.8
Sept. 28	Sept. 29	-----	32.0	19.0	13.0	11.0	9.0	2.0	15.0	1.20	5.0	9.0	450,000	3.9
Sept. 30	Oct. 1	19.0	54.0	32.0	22.0	12.0	10.0	2.0	14.0	0.60	2.0	18.0	190,000	3.7
Oct. 2	Oct. 3	15.0	56.0	35.0	21.0	12.0	9.0	3.0	19.0	0.80	2.0	15.0	----------	3.7
Oct. 6	Oct. 7	17.0	138.0	87.0	51.0	13.0	8.0	5.0	22.0	0.40	0.0	28.0	270,000	1.4
Oct. 8	Oct. 9	18.0	140.0	84.0	56.0	12.0	6.0	6.0	20.0	0.70	1.0	24.0	280,000	2.4
Oct. 10	Oct. 11	16.0	96.0	61.0	35.0	8.0	7.0	1.0	21.0	0.70	2.0	17.0	390,000	3.3
Filter rested from October 22 to 29, inclusive.														
Oct. 30	Oct. 31	-----	108.0	66.0	42.0	18.0	-----	-----	24.0	0.10	0.0	28.0	500,000	4.1
Nov. 1	Nov. 2	-----	66.0	28.0	38.0	15.0	-----	-----	21.0	0.70	3.0	22.0	490,000	3.8
Nov. 3	Nov. 4	13.0	42.0	24.0	18.0	13.0	-----	-----	21.0	1.00	5.0	26.0	440,000	-------
Filter rested from November 7 to 14, inclusive.														
Nov. 15	Nov. 16	5.0	100.0	64.0	36.0	23.0	-----	-----	24.0	1.60	1.0	28.0	540.000	4.2
Nov. 17	Nov. 18	10.0	72.0	50.0	22.0	10.0	-----	-----	22.0	1.00	0.0	20.0	1,000,000	3.9
Nov. 29	--------	11.0	70.0	44.0	26.0	13.0	-----	-----	22.0	0.40	5.0	24.0	----------	3.8
Dec. 11	Dec. 12	7.8	62.0	44.0	18.0	12.0	-----	-----	18.0	1.40	4.0	17.0	330,000	5.2
Dec. 13	Dec. 14	8.0	38.0	28.0	10.0	18.0	-----	-----	17.0	0.40	5.0	14.0	590,000	2.8
Dec. 15	Dec. 16	8.0	90.0	44.0	46.0	8.0	-----	-----	17.0	0.60	5.0	22.0	----------	3.7
Jan. 6	Jan. 8	4.3	45.0	35.0	10.0	10.0	7.0	3.0	16.0	0.40	4.0	23.0	330,000	4.5
Jan. 9	Jan. 11	5.5	23.5	14.5	9.0	7.0	5.0	2.0	14.0	0.40	7.0	15.0	----------	3.7
Jan. 16	Jan. 18	6.0	30.0	27.0	3.0	12.0	8.0	4.0	14.0	0.00	5.0	18.0	----------	3.4
Jan. 19	Jan. 21	7.5	43.0	34.0	9.0	12.0	10.0	2.0	19.0	0.10	5.0	23.0	----------	3.2
Feb. 3	Feb. 5	4.3	46.0	44.0	2.0	10.0	9.0	1.0	18.0	0.20	4.0	31.0	980,000	3.4
Feb. 6	Feb. 8	4.5	38.0	32.0	6.0	13.0	12.0	1.0	13.0	0.10	1.0	24.0	----------	3.4
Feb. 12	Feb. 14	7.0	48.0	36.0	12.0	9.0	8.0	1.0	13.0	0.20	4.0	18.0	700,000	4.4
Feb. 15	Feb. 17	4.5	56.0	40.0	16.0	10.0	8.0	2.0	16.0	0.20	5.0	25.0	530,000	4.1
Feb. 21	Feb. 23	6.0	34.0	28.0	6.0	8.0	6.0	2.0	16.0	0.05	7.0	27.0	----------	2.9
Feb. 24	Feb. 26	6.5	42.0	34.0	8.0	10.0	9.0	1.0	13.0	0.20	3.0	23.0	140,000	3.8
Feb. 29	Mar. 2	7.0	39.0	33.0	6.0	11.0	10.0	1.0	16.0	0.20	3.0	25.0	----------	3.3
Mar. 3	Mar. 5	6.5	58.0	44.0	14.0	12.0	9.0	3.0	15.0	0.20	2.0	25.0	350,000	3.1
May 25	May 26	18.0	91.0	71.0	20.0	14.0	9.0	5.0	13.0	0.50	1.0	66.0	----------	-------
July 13	July 25	21.7	86.0	65.0	21.0	9.0	6.0	3.0	13.0	1.00	3.0	21.0	840,000	5.4
July 27	Aug. 8	22.5	48.0	33.0	15.0	7.0	4.0	3.0	10.0	2.00	7.0	12.0	550,000	4.9
Sept. 7	Sept. 19	18.9	33.0	28.0	5.0	9.0	7.0	2.0	15.0	0.10	5.0	17.0	540,000	4.8
Sept. 21	Oct. 3	18.7	32.0	26.0	6.0	6.0	5.0	1.0	14.0	0.50	4.0	17.0	370,000	5.2

TABLE No. 26.

Period Covered 1907-8		Temp. Degrees Cent.	Parts per Million											Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen as						Oxygen Consumed	Bacteria per C. C.	
						Organic			Free Ammonia	Nitrites	Nitrates			
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						
Settled Effluent From Twelve-foot Sprinkling Filter 4" to 6" Stone.														
Sept. 20	Sept. 21	20.0	10.0	5.0	5.0	14.0	12.0	2.0	16.0	0.18	0.3	19.0	4,100,000	3.5
Sept. 22	Sept. 23	-----	23.0	23.0	0.0	14.0	13.0	1.0	17.0	0.50	5.0	8.0	---------	3.0
Sept. 24	Sept. 25	19.0	26.0	11.0	15.0	14.0	14.0	0.0	11.0	0.70	5.0	14.0	1,200,000	3.8
Sept. 28	Sept. 29	-----	7.0	7.0	0.0	12.0	10.0	2.0	15.0	1.20	4.0	10.0	490,000	3.9
Sept. 30	Oct. 1	19.0	28.0	20.0	8.0	13.0	11.0	2.0	13.0	0.70	2.0	18.0	100,000	3.7
Oct. 2	Oct. 3	15.0	31.0	23.0	8.0	11.0	10.0	1.0	19.0	0.50	2.0	13.0	---------	3.7
Oct. 6	Oct. 7	17.0	41.0	34.0	7.0	9.0	8.0	1.0	22.0	0.50	3.0	23.0	320,000	1.4
Oct. 8	Oct. 9	18.0	61.0	39.0	22.0	9.0	6.0	3.0	20.0	0.80	1.0	21.0	360,000	2.4
Oct. 10	Oct. 11	16.0	46.0	27.0	19.0	8.0	7.0	1.0	22.0	0.60	3.0	19.0	460,000	3.3
Filter rested from October 22 to 29, inclusive.														
Oct. 30	Oct. 31	-----	88.0	52.0	36.0	18.0	-----	-----	24.0	0.00	0.0	28.0	590,000	4.1
Nov. 1	Nov. 2	-----	40.0	24.0	16.0	13.0	-----	-----	21.0	0.40	3.0	24.0	510,000	3.8
Nov. 3	Nov. 4	13.0	22.0	16.0	6.0	11.0	-----	-----	21.0	1.00	10.0	22.0	580,000	-------
Filter rested from November 7 to 14, inclusive.														
Nov. 15	Nov. 16	5.0	108.0	60.0	48.0	21.0	-----	-----	27.0	0.80	5.0	34.0	840,000	4.2
Nov. 17	Nov. 18	10.0	44.0	34.0	10.0	10.0	-----	-----	22.0	0.40	0.0	18.0	770,000	3.9
Nov. 29	--------	11.0	38.0	28.0	10.0	14.0	-----	-----	21.0	0.40	5.0	24.0	---------	3.8
Dec. 11	Dec. 12	7.8	42.0	38.0	4.0	11.0	-----	-----	18.0	0.60	3.0	16.0	280,000	5.2
Dec. 13	Dec. 14	8.0	26.0	20.0	6.0	22.0	-----	-----	17.0	0.20	6.0	16.0	230,000	2.8
Dec. 15	Dec. 16	8.0	32.0	16.0	16.0	6.0	-----	-----	18.0	0.60	8.0	21.0	---------	3.7
Jan. 6	Jan. 8	4.3	30.0	28.0	2.0	6.0	3.0	3.0	18.0	0.30	4.0	21.0	180,000	4.5
Jan. 9	Jan. 11	5.5	23.0	16.5	6.5	3.0	3.0	0.0	16.0	0.40	7.0	18.0	---------	3.8
Jan. 16	Jan. 18	6.0	30.0	20.0	10.0	10.0	6.0	4.0	14.0	0.10	5.0	18.0	---------	3.4
Jan. 19	Jan. 21	7.5	39.5	35.0	4.5	11.0	10.0	1.0	19.0	0.00	5.0	25.0	---------	3.2
Feb. 3	Feb. 5	4.3	26.0	25.0	1.0	10.0	8.0	2.0	18.0	0.20	4.0	31.0	430,000	3.4
Feb. 6	Feb. 8	4.5	24.0	22.0	2.0	11.0	9.0	2.0	17.0	0.05	2.0	26.0	---------	3.4
Feb. 12	Feb. 14	7.0	23.0	17.0	6.0	8.0	6.0	2.0	14.0	0.20	4.0	21.0	300,000	4.4
Feb. 15	Feb. 17	4.5	30.0	22.0	8.0	9.0	8.0	1.0	16.0	0.40	5.0	25.0	420,000	4.1
Feb. 21	Feb. 23	6.0	21.0	18.0	3.0	7.0	5.0	2.0	16.0	0.10	7.0	24.0	---------	2.9
Feb. 24	Feb. 26	6.5	25.0	19.0	6.0	10.0	9.0	1.0	13.0	0.20	3.0	23.0	130,000	3.8
Feb. 29	Mar. 2	7.0	20.0	16.5	3.5	9.0	9.0	0.0	17.0	0.20	3.0	25.0	---------	3.3
Mar. 3	Mar. 5	6.5	22.5	17.5	5.0	8.0	8.0	0.0	16.0	0.10	2.0	23.0	130,000	3.1
May 25	May 26	18.0	46.0	43.0	3.0	15.0	12.0	3.0	12.0	0.40	1.0	60.0	---------	-------
July 13	July 25	21.7	56.0	30.0	26.0	6.0	5.0	1.0	13.0	1.20	5.0	17.0	190,000	5.4
July 27	Aug. 8	22.5	27.0	18.0	9.0	5.0	5.0	0.0	10.0	1.40	8.0	14.0	420,000	4.9
Sept. 7	Sept. 19	18.9	29.0	25.0	4.0	9.0	6.0	3.0	16.0	0.10	5.0	18.0	320,000	4.8
Sept. 21	Oct. 3	18.7	23.0	22.0	1.0	6.0	5.0	1.0	14.0	0.50	10.0	17.0	230,000	5.2

TABLES No. 27 TO 30 INCLUSIVE.

Period Covered 1908 From	To	Number of Samples	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp.	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
TABLE No. 27.														
Effluent From Ten and One-half-foot Sprinkling Filter ½" to 1½" Stone.														
June 8	June 13	1	28.0	14.0	14.0	9.0	8.0	1.0	5.0	0.40	20.0	13.0	110,000	5.0
June 15	June 27	1	37.0	28.0	9.0	5.0	5.0	0.0	3.0	0.40	20.0	13.0	200,000	4.8
June 29	July 11	1	30.0	24.0	6.0	3.5	3.5	0.0	3.5	0.20	15.0	23.0	150,000	5.5
Aug. 10	Aug. 22	1	22.0	17.0	5.0	5.0	4.5	0.5	3.0	0.20	15.0	9.0	190,000	-------
Aug. 24	Sept. 5	1	38.0	27.0	11.0	6.0	4.0	2.0	4.0	0.30	10.0	13.0	300,000	4.9
Oct. 5	Oct. 17	1	8.0	2.0	6.0	5.0	4.0	1.0	13.0	0.60	10.0	12.0	390,000	5.1
TABLE No. 28.														
Settled Effluent From Ten and One-half-foot Sprinkling Filter ½" to 1½" Stone.														
June 8	June 13	1	13.0	9.0	4.0	8.0	8.0	0.0	5.0	0.10	20.0	13.0	5,700	5.0
June 15	June 27	1	29.0	23.0	6.0	6.0	5.0	1.0	3.0	0.40	20.0	12.0	1,900	4.8
June 29	July 11	1	38.0	17.0	21.0	4.5	3.5	1.0	3.5	0.20	20.0	20.0	2,500	5.5
Aug. 10	Aug. 22	1	18.0	15.0	3.0	5.0	5.0	0.0	3.0	0.30	15.0	10.0	6,300	-------
Aug. 24	Sept. 5	1	30.0	21.0	9.0	5.0	4.0	1.0	4.0	0.30	10.0	13.0	3,200	4.9
Oct. 5	Oct. 17	1	9.0	2.0	7.0	6.0	4.0	2.0	13.0	0.30	10.0	14.0	110,000	5.1
TABLE No. 29.														
Effluent From Four and One-half-foot Sprinkling Filter 1" to 2" Stone														
June 8	June 13	1	27.0	18.0	9.0	12.0	9.0	3.0	13.0	0.40	4.0	25.0	170,000	5.0
June 15	June 27	1	34.0	30.0	4.0	8.0	8.0	0.0	14.0	0.40	4.0	22.0	270,000	4.8
June 29	July 11	1	63.0	56.0	7.0	10.0	8.0	2.0	13.0	0.30	3.0	32.0	470,000	5.5
Aug. 10	Aug. 22	1	87.0	61.0	26.0	9.0	5.0	4.0	13.0	0.40	5.0	26.0	330,000	-------
Aug. 24	Sept. 5	1	42.0	33.0	9.0	6.0	5.0	1.0	16.0	0.20	3.0	24.0	490,000	4.9
Oct. 5	Oct. 17	1	13.0	10.0	3.0	5.0	4.0	1.0	23.0	0.10	1.0	32.0	1,100,000	5.1
TABLE No. 30														
Settled Effluent From Four and One-half-foot Sprinkling Filter 1" to 2" Stone.														
June 8	June 13	1	17.0	10.0	7.0	9.0	8.0	1.0	14.0	0.40	4.0	14.0	110,000	5.0
June 15	June 27	1	26.0	20.0	6.0	9.0	9.0	0.0	13.0	0.40	4.5	16.0	170,000	4.8
June 29	July 11	1	16.0	16.0	0.0	8.0	7.0	1.0	13.0	0.30	4.0	19.0	390,000	5.5
Aug. 10	Aug. 22	1	16.0	15.0	1.0	6.0	5.0	1.0	13.0	0.40	5.0	14.0	200,000	-------
Aug. 24	Sept. 5	1	34.0	26.0	8.0	6.0	5.0	1.0	16.0	0.30	3.0	16.0	360,000	4.9
Oct. 5	Oct. 17	1	11.0	10.0	1.0	5.0	5.0	0.0	22.0	0.10	1.0	28.0	990,000	5.1

TABLES No. 31 TO 34 INCLUSIVE.

Period Covered 1908		Number of Samples	Parts per Million											Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen As						Oxygen Consumed	Bacteria per C. C.	
						Organic			Free Ammonia	Nitrites	Nitrates			
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						

TABLE No. 31.

Effluent From Seven and One-half-foot Sprinkling Filter 1" to 2" Stone.

June 8	June 13	1	26.0	15.0	11.0	9.0	8.0	1.0	10.0	0.70	15.0	15.0	80,000	5.0
June 15	June 27	1	46.0	38.0	8.0	8.0	8.0	0.0	9.0	0.80	10.0	14.0	100,000	4.8
June 29	July 11	1	38.0	33.0	5.0	9.0	8.0	1.0	10.0	0.40	10.0	19.0	260,000	5.5
Aug. 10	Aug. 22	1	42.0	32.0	10.0	8.5	6.5	2.0	7.5	0.60	20.0	16.0	280,000	-------
Aug. 24	Sept. 5	1	47.0	34.0	13.0	9.0	7.0	2.0	9.0	0.60	7.0	16.0	300,000	4.9
Oct. 5	Oct. 17	1	9.0	5.0	4.0	4.0	3.0	1.0	18.0	0.30	4.0	15.0	620,000	5.1

TABLE No. 32.

Settled Effluent From Seven and One half-foot Sprinkling Filter 1" to 2" Stone.

June 8	June 13	1	20.0	11.0	9.0	8.0	7.0	1.0	10.0	0.70	15.0	15.0	100,000	5.0
June 15	June 27	1	29.0	26.0	3.0	7.5	7.5	0.0	8.5	1.00	10.0	15.0	120,000	4.8
June 29	July 11	1	32.0	24.0	8.0	7.0	5.0	2.0	9.0	0.30	7.0	19.0	160,000	5.5
Aug. 10	Aug. 22	1	33.0	22.0	11.0	7.0	6.0	1.0	7.0	0.60	10.0	15.0	200,000	-------
Aug. 24	Sept. 5	1	29.0	21.0	8.0	8.5	5.5	3.0	8.5	0.50	5.0	16.0	230,000	4.9
Oct. 5	Oct. 17	1	6.0	4.0	2.0	6.0	5.0	1.0	19.0	0.20	4.0	28.0	610,000	5.1

TABLE No. 33

Effluent From Ten and One-half-foot Sprinkling Filter 1" to 2" Stone.

June 8	June 13	1	21.0	11.0	10.0	9.0	8.0	1.0	8.0	0.70	20.0	14.0	100,000	5.0
June 15	June 27	1	34.0	30.0	4.0	6.0	5.0	1.0	4.0	0.60	20.0	14.0	100,000	4.8
June 29	July 11	1	19.0	18.0	1.0	6.0	4.0	2.0	4.0	0.40	20.0	19.0	170,000	5.5
Aug. 10	Aug. 22	1	42.0	26.0	16.0	5.0	4.0	1.0	4.0	0.40	20.0	15.0	250,000	-------
Aug. 24	Sept. 5	1	59.0	43.0	16.0	13.0	8.5	4.5	4.5	0.40	15.0	17.0	440,000	4.9
Oct. 5	Oct. 17	1	13.0	7.0	6.0	4.0	2.0	2.0	17.0	1.00	7.0	20.0	440,000	5.1

TABLE No. 34

Settled Effluent From Ten and One-half-foot Sprinkling Filter 1" to 2" Stone.

June 8	June 13	1	16.0	7.0	9.0	7.0	7.0	0.0	8.0	0.60	20.0	11.0	180,000	5.0
June 15	June 27	1	28.0	26.0	2.0	5.0	5.0	0.0	4.0	0.60	20.0	13.0	150,000	4.8
June 29	July 11	1	34.0	21.0	13.0	5.0	3.0	2.0	4.0	0.40	20.0	11.0	190,000	5.5
Aug. 10	Aug. 22	1	38.0	22.0	16.0	5.0	4.0	1.0	4.0	0.40	20.0	12.0	220,000	-------
Aug. 24	Sept. 5	1	26.0	18.0	8.0	9.5	5.5	4.0	4.5	0.40	12.0	12.0	290,000	4.9
Oct. 5	Oct. 17	1	11.0	3.0	8.0	3.0	3.0	0.0	17.0	0.80	7.0	14.0	360,000	5.1

TABLES No. 35 TO 38 INCLUSIVE.

Period Covered 1908		Number of Samples	Parts per Million											Rate of Filtration Million Gallons per Acre per Day
			Susp'd Solids			Nitrogen As						Oxygen Consumed	Bacteria per C. C.	
						Organic			Free Ammonia	Nitrites	Nitrates			
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						

TABLE No. 35.

Effluent From Four and One-half-foot Sprinkling Filter 1" to 3" Stone.

June 8	June 13	1	31.0	18.0	13.0	12.0	10.0	2.0	15.0	0.00	0.5	30.0	610,000	5.0
June 15	June 27	1	48.0	41.0	7.0	11.0	9.0	2.0	14.0	0.50	1.0	22.0	320,000	4.8
June 29	July 11	1	30.0	27.0	3.0	10.0	8.0	2.0	13.0	0.40	2.0	29.0	540,000	5.5
Aug. 10	Aug. 22	1	39.0	30.0	9.0	6.0	5.0	1.0	14.0	0.70	5.0	20.0	690,000	-------
Aug. 24	Sept. 5	1	38.0	26.0	12,0	7.0	5.0	2.0	15.0	0.20	3.0	19.0	550,000	4.9
Oct. 5	Oct. 17	1	19.0	13.0	6.0	4.0	3.0	1.0	22.0	0.00	1.0	31.0	1,130,000	5.1

TABLE No. 36.

Settled Effluent From Four and One-half-foot Sprinkling Filter 1" to 3" Stone.

June 8	June 13	1	19.0	15.0	4.0	12.0	10.0	2.0	15.0	0.00	0.0	28.0	54,000	5.0
June 15	June 27	1	31.0	30.0	1.0	11.0	10.0	1.0	14.0	0.40	1.0	20.0	19,000	4.8
June 29	July 11	1	24.0	23.0	1.0	8.0	8.0	0.0	13.0	0.40	1.0	25.0	92,000	5.5
Aug. 10	Aug. 22	1	29.0	23.0	6.0	5.0	5.0	0.0	14.0	0.60	5.0	18.0	8,400	-------
Aug. 24	Sept. 5	1	31.0	23.0	8.0	6.0	4.0	2.0	16.0	0.20	2.0	18.0	11,800	4.9
Oct. 5	Oct. 17	1	17.0	11.0	6.0	7.0	4.0	3.0	21.0	0.00	1.0	34.0	150,000	5.1

TABLE No. 37.

Effluent From Six-foot Sprinkling Filter 1" to 3" Stone.

July 13	July 25	1	45.0	37.0	8.0	6.0	4.0	2.0	12.0	1.00	4.0	16.0	290,000	5.4
July 27	Aug. 8	1	36.0	19.0	17.0	7.0	5.0	2.0	10.0	1.80	7.0	19.0	440,000	4.9
Sept. 7	Sept. 19	1	21.0	19.0	2.0	9.0	7.0	2.0	16.0	0.00	4.0	24.0	400,000	4.8
Sept. 21	Oct. 3	1	49.0	38.0	11.0	7.0	5.0	2.0	14.0	0.60	6.0	25.0	610,000	5.2

TABLE No. 38.

Settled Effluent From Six-foot Sprinkling Filter 1" to 3" Stone.

July 13	July 25	1	28.0	28.0	0.0	7.0	4.0	3.0	11.0	0.80	3.0	10.0	60,000	5.4
July 27	Aug. 8	1	20.0	13.0	7.0	7.0	5.0	2.0	10.0	1.40	7.0	18.0	57,000	4.9
Sept. 7	Sept. 19	1	18.0	18.0	0.0	8.0	7.0	1.0	16.0	0.00	3.0	23.0	63,000	4.8
Sept. 21	Oct. 3	1	34.0	28.0	6.0	5.0	4.0	1.0	15.0	0.30	6.0	20.0	25,000	5.2

TABLES No. 39 TO 42 INCLUSIVE.

Period Covered 1908 From	To	Number of Samples	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day
TABLE No. 39.														
EFFLUENT FROM SEVEN AND ONE-HALF-FOOT SPRINKLING FILTER 1" TO 3" STONE														
June 8	June 13	1	6.0	4.0	2.0	13.0	11.0	2.0	15.0	0.20	0.5	20.0	480,000	5.0
June 15	June 27	1	28.0	24.0	4.0	10.0	8.0	2.0	13.0	1.20	4.0	17.0	300,000	4.8
June 29	July 11	1	18.0	18.0	0.0	8.0	7.0	1.0	12.0	0.80	4.0	20.0	370,000	5.5
Aug. 10	Aug. 22	1	37.0	29.0	8.0	6.5	5.5	1.0	9.5	1.20	8.0	12.0	320,000	-------
Aug. 24	Sept. 5	1	47.0	32.0	15.0	6.0	4.0	2.0	13.0	0.60	4.0	17.0	370,000	4.9
Oct. 5	Oct. 17	1	13.0	4.0	9.0	6.0	5.0	1.0	19.0	0.50	2.0	20.0	1,000,000	5.1
TABLE No. 40.														
SETTLED EFFLUENT FROM SEVEN AND ONE-HALF-FOOT SPRINKLING FILTER 1" TO 3" STONE.														
June 8	June 13	1	14.0	8.0	6.0	11.0	10.0	1.0	15.0	0.10	0.0	24.0	40,000	5.0
June 15	June 27	1	26.0	24.0	2.0	10.0	8.0	2.0	14.0	1.20	2.0	17.0	17,000	4.8
June 29	July 11	1	26.0	21.0	5.0	8.0	7.0	1.0	12.0	0.60	3.0	20.0	29,000	5.5
Aug. 10	Aug. 22	1	32.0	25.0	7.0	5.4	4.5	1.0	9.5	2.80	9.0	15.0	12,800	-------
Aug. 24	Sept. 5	1	33.0	25.0	8.0	7.0	6.0	1.0	13.0	0.60	4.0	14.0	7,200	4.9
Oct. 5	Oct. 17	1	15.0	5.0	10.0	6.0	5.0	1.0	19.0	0.40	2.0	22.0	210,000	5.1
TABLE No. 41.														
EFFLUENT FROM NINE-FOOT SPRINKLING FILTER 1" TO 3" STONE.														
July 13	July 25	1	36.0	27.0	9.0	5.0	3.0	2.0	10.0	1.20	5.0	7.0	290,000	5.4
July 27	Aug. 8	1	24.0	16.0	8.0	4.0	3.0	1.0	7.0	1.40	10.0	12.0	410,000	4.9
Sept. 7	Sept. 19	1	27.0	22.0	5.0	9.0	8.0	1.0	12.0	0.20	12.0	14.0	330,000	4.8
Sept. 21	Oct. 3	1	48.0	37.0	11.0	6.0	4.0	2.0	10.0	0.70	17.0	18.0	310,000	5.2
TABLE No. 42.														
SETTLED EFFLUENT FROM NINE-FOOT SPRINKLING FILTER 1" TO 3" STONE.														
July 13	July 25	1	20.0	16.0	4.0	5.0	4.0	1.0	10.0	1.40	7.0	11.0	51,000	5.4
July 27	Aug. 8	1	17.0	10.0	7.0	3.0	3.0	0.0	7.0	1.40	10.0	15.0	55,000	4.9
Sept. 7	Sept. 19	1	17.0	16.0	1.0	8.0	7.0	1.0	12.0	0.20	12.0	17.0	35,000	4.8
Sept. 21	Oct. 3	1	28.0	24.0	4.0	5.0	4.0	1.0	10.0	1.00	17.0	17.0	26,000	5.2

APPENDIX I

PART II

Monthly Averages of Analysis of Raw and Settled Sewage, Filtered Effluents and Settled Effluents

TABLES 1 TO 42 INCLUSIVE

TABLE No. 1.

Period Covered 1907-8		Number of Samples	Parts per Million													Bacteria per C. C.	Rate of Flow, Gallons per 24 Hours
			Susp'd Solids			Nitrogen as						Oxygen Consumed					
						Organic											
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.	Free Ammonia	Nitrites	Nitrates	Total	Solution	Suspension			
Raw Sewage																	
Aug. 1	Sept. 1	12	246.0	114.0	132.0	16.0	13.0	3.0	18	0.48	1.6	38	28	10	6,100,000	25,000
Sept. 4	Oct. 3	11	190.0	152.0	38.0	19.0	15.0	4.0	19	0.40	0.5	50	26	24	5,200,000	62,000
Oct. 6	Nov. 4	9	188.0	151.0	37.0	20.0	----	----	24	0.07	0.2	57	32	25	2,600,000	47,500
Nov. 15	Nov. 29	6	165.0	139.0	26.0	20.0	----	----	22	0.15	1.0	45	29	16	2,100,000	84,500
Dec. 3	Dec. 29	10	123.0	104.0	19.0	20.0	----	----	19	0.14	1.2	51	32	19	1,800,000	79,000
Jan. 6	Jan. 21	10	127.0	112.0	15.0	19.0	15.0	4.0	16	0.28	1.6	55	30	25	2,700,000	96,500
Feb. 2	Feb. 26	12	149.0	117.0	32.0	20.0	14.0	6.0	17	0.14	1.9	75	52	23	2,600,000	90,000
Feb. 29	Mar. 24	10	275.0	236.0	39.0	28.0	21.0	7.0	20	0.15	1.9	103	41	62	2,200,000	82,000
Mar. 27	April 29	2	165.0	135.0	30.0	25.0	20.0	5.0	20	0.20	1.5	62	21	41	2,400,000	91,800
April 30	May 26	2	104.0	90.0	14.0	19.0	16.0	3.0	17	0.65	1.3	102	62	40	3,000,000	95,700
June 8	July 11	3	88.0	74.3	13.7	15.0	13.0	2.0	14	0.06	1.0	79	43	36	2,600,000	69,700
July 13	Aug. 8	2	124.0	97.0	27.0	9.5	6.5	3.0	14	0.04	1.0	45	16	29	5,100,000	84,100
Aug. 10	Sept. 5	2	102.0	87.0	15.0	12.0	8.0	4.0	15	0.08	0.7	49	25	24	3,200,000	67,500
Sept. 7	Oct. 3	2	101.0	86.0	15.0	14.0	11.0	3.0	19	0.10	0.2	59	33	26	6,100,000	83,700
Oct. 5	Oct. 17	1	109.0	90.0	19.0	10.0	5.0	5.0	23	0.05	1.0	57	38	19	6,400,000	76,700

TABLE No. 2.

Settled Sewage																
Aug. 1	Sept. 1	12	46.5	32.4	14.1	12.0	9.0	3.0	20	0.40	1.1	31	25	6	3,700,000	20.1
Sept. 4	Oct. 3	11	71.9	50.4	21.5	17.0	14.0	3.0	20	0.49	0.6	36	25	11	1,900,000	8.4
Oct. 6	Nov. 4	9	93.5	69.7	23.8	18.0	----	----	25	0.11	0.2	46	33	13	1,800,000	9.9
Nov. 15	Nov. 29	6	102.0	70.5	31.5	18.0	----	----	21	0.14	0.9	40	29	11	1,600,000	5.5
Dec. 3	Dec. 29	10	80.7	62.6	18.1	19.0	----	----	21	0.19	1.7	52	34	18	1,600,000	5.0
Jan. 6	Jan. 21	10	69.8	58.2	11.6	16.0	12.0	4.0	17	0.14	1.4	48	37	11	1,200,000	4.9
Feb. 2	Feb. 26	12	66.3	50.8	15.5	17.0	15.0	2.0	16	0.12	1.6	61	51	10	1,100,000	5.2
Feb. 29	Mar. 24	10	68.2	60.7	7.5	16.0	13.0	3.0	18	0.13	1.9	58	42	16	1,300,000	5.5
Mar. 27	April 29	2	89.8	77.0	12.8	19.0	16.0	3.0	21	0.13	1.0	59	37	22	1,400,000	5.4
April 30	May 26	2	84.5	74.0	10.5	15.0	13.0	2.0	20	0.08	0.8	90	62	28	1,500,000	5.2
June 8	July 11	3	54.3	48.3	6.0	12.0	11.0	1.0	16	0.03	0.7	43	30	13	1,800,000	7.3
July 13	Aug. 8	2	58.5	52.5	6.0	8.0	5.5	2.5	16	0.07	1.0	33	18	15	3,300,000	6.2
Aug. 10	Sept. 5	2	66.5	51.0	15.5	8.5	7.0	1.5	18	0.05	0.7	38	26	12	2,600,000	7.5
Sept. 7	Oct. 3	2	55.0	46.5	8.5	16.0	13.0	3.0	21	0.03	0.1	41	30	11	2,400,000	6.3
Oct. 5	Oct. 17	1	51.0	41.0	10.0	8.0	5.0	3.0	25	0.05	1.0	45	32	13	4,100,000	6.7

TABLE No. 3.

Period Covered 1907-8 From	To	Number of Samples	Parts per million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp.	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day: Maximum	Minimum	Average	Population: Per Acre	Per Acre-Foot
Effluent from Six-foot Sprinkling Filter ½" to 1½" Stone																		
Aug. 1	Sept. 1	11	26.7	13.6	13.1	11.0	9.4	1.6	8.6	1.85	16.0	14	270,000	3.1	1.3	1.9	44,233	7,37
Sept. 4	Sept. 17	5	35.4	22.5	12.9	8.4	7.8	0.6	12.0	1.22	10.0	19	----------	3.8	2.6	3.2	76,113	12,68
Oct. 22	Oct. 27	3	32.7	24.7	8.0	16.0	----	----	21.0	0.20	1.0	19	320,000	5.1	2.8	3.6	90,539	15,09
Nov. 21	Nov. 26	3	51.3	32.0	19.3	11.0	----	----	14.0	0.90	10.0	16	160,000	5.3	2.2	3.4	48,258	8,04
Dec. 3	Dec. 29	7	56.3	32.4	23.9	11.0	----	----	15.0	0.47	11.0	20	240,000	5.5	2.3	2.8	49,454	8,24
Jan. 7	Jan. 30	6	48.8	37.2	11.6	7.8	5.7	2.1	13.0	0.54	8.3	22	280,000	5.2	3.1	3.7	49,454	8,24
Feb. 2	Feb. 25	6	53.7	40.3	13.4	9.5	7.2	2.3	13.0	0.16	10.0	26	330,000	4.6	2.5	3.6	49,454	8,24
Mar. 1	Mar. 24	5	41.2	32.2	9.0	9.0	7.0	2.0	12.0	0.22	13.0	21	610,000	5.0	3.0	3.3	49,454	8,24
Mar. 27	April 29	2	53.0	36.5	16.5	11.0	9.0	2.0	15.0	0.08	9.5	24	350,000	5.5	3.0	4.4	49,454	8,24
April 30	May 7	1	63.0	47.0	16.0	14.0	10.0	4.0	16.0	0.10	10.0	33	460,000	5.5	5.2	5.3	49,454	8,24

TABLE No. 4.

Settled Effluent from Six-foot Sprinkling Filter ½" to 1½" Stone

Aug. 1	Sept. 1	11	8.3	4.6	3.7	9.9	8.9	1.0	8.7	2.07	17.0	13	260,000	3.1	1.3	1.9	----	----
Sept. 4	Sept. 17	5	15.4	11.3	4.1	8.8	8.2	0.6	12.0	1.24	9.0	18	----------	3.8	2.6	3.2	----	----
Oct. 22	Oct. 27	3	29.0	24.3	4.7	13.0	----	----	22.0	0.13	3.3	19	160,000	5.1	2.8	3.6	----	----
Nov. 21	Nov. 26	3	26.7	18.0	8.7	10.0	----	----	13.0	1.03	10.0	12	150,000	5.3	2.2	3.4	----	----
Dec. 3	Dec. 29	7	31.4	21.4	10.0	9.9	----	----	15.0	0.31	9.9	17	140,000	5.5	2.3	2.8	----	----
Jan. 7	Jan. 30	6	40.8	28.8	12.0	7.3	4.5	2.8	14.0	0.53	8.2	19	120,000	5.2	3.1	3.7	----	----
Feb. 2	Feb. 25	6	30.7	23.3	7.4	8.5	7.5	1.0	13.0	0.19	9.7	23	170,000	4.6	2.5	3.6	----	----
Mar. 1	Mar. 24	5	21.7	15.5	6.2	8.8	7.8	1.0	13.0	0.16	11.0	19	140,000	5.0	3.0	3.3	----	----
Mar. 27	April 29	2	22.5	15.0	7.5	11.0	10.0	1.0	15.0	0.15	9.5	19	180,000	5.5	3.0	4.4	----	----
April 30	May 7	1	37.0	30.0	7.0	12.0	10.0	2.0	16.0	0.10	10.0	28	190,000	5.5	5.2	5.3	----	----

TABLE No. 5.

Effluent from Nine-foot Sprinkling Filter ½" to 1½" Stone.

Aug. 1	Sept. 1	12	17.9	8.9	9.0	9.4	7.7	1.7	6.6	1.26	14.0	11	160,000	3.1	1.3	1.9	44,233	4,42
Sept. 4	Sept. 17	5	27.5	16.3	11.2	8.6	8.0	0.6	9.4	1.24	14.0	13	----------	3.8	2.6	3.2	76,113	8,44
Oct. 22	Oct. 27	3	49.5	27.5	22.0	13.0	----	----	20.0	0.73	3.7	15	160,000	5.1	2.8	3.6	90,539	10,06
Nov. 21	Nov. 26	3	66.7	35.3	31.4	10.0	----	----	12.0	0.83	15.0	13	130,000	5.3	2.2	3.4	48,258	5,36
Dec. 3	Dec. 29	7	66.4	34.6	31.8	12.0	----	----	12.0	0.53	17.0	15	110,000	5.5	2.3	2.8	49,454	5,49
Jan. 7	Jan. 30	6	59.5	41.3	18.2	9.7	5.4	4.3	9.9	0.58	12.0	15	150,000	5.2	2.8	3.7	49,454	5,49
Feb. 2	Feb. 25	6	38.7	27.5	11.2	9.3	7.2	2.1	9.1	0.16	13.0	19	120,000	4.6	2.5	3.6	49,454	5,49
Mar. 1	Mar. 24	5	36.2	26.1	10.1	9.8	6.8	3.0	7.4	0.20	18.0	16	160,000	5.0	3.0	3.3	49,454	5,49
Mar. 27	April 29	2	49.5	30.0	19.5	7.0	6.5	0.5	13.0	0.08	20.0	19	150,000	5.5	3.0	4.4	49,454	5,49
April 30	May 7	1	47.0	34.0	13.0	10.0	7.0	3.0	10.0	0.10	20.0	23	190,000	5.5	5.2	5.3	49,454	5,49

TABLE No. 6.

Settled Effluent from Nine-foot Sprinkling Filter ½" to 1½" Stone

Aug. 1	Sept. 1	12	12.7	6.6	6.1	9.7	8.8	0.9	6.6	1.54	20.0	11	210,000	3.1	1.3	1.9	----	----
Sept. 4	Sept. 17	5	17.6	11.5	6.1	8.4	7.8	0.6	11.0	1.26	15.0	14	----------	3.8	2.6	3.2	----	----
Oct. 22	Oct. 27	3	39.0	26.5	12.5	13.0	----	----	21.0	0.73	2.7	16	140,000	5.1	2.8	3.6	----	----
Nov. 21	Nov. 26	3	40.7	22.7	18.0	9.0	----	----	12.0	0.70	15.0	12	150,000	5.3	2.2	3.4	----	----
Dec. 3	Dec. 29	7	33.4	17.9	15.5	10.0	----	----	13.0	0.46	17.0	14	90,000	5.5	2.3	2.8	----	----
Jan. 7	Jan. 30	6	38.7	27.5	11.2	7.7	4.7	3.0	11.0	0.49	12.0	14	110,000	5.2	3.1	3.7	----	----
Feb. 2	Feb. 25	6	29.8	22.0	7.8	8.3	6.3	2.0	9.9	0.14	14.0	18	100,000	4.6	2.5	3.6	----	----
Mar. 1	Mar. 24	5	27.1	19.5	7.6	7.7	6.5	1.2	7.5	0.16	18.0	16	130,000	5.0	3.0	3.3	----	----
Mar. 27	April 29	2	31.0	16.5	14.5	10.0	8.5	1.5	10.0	0.15	20.0	17	130,000	5.5	3.0	4.4	----	----
April 30	May 7	1	30.0	24.0	6.0	10.0	8.0	2.0	10.0	0.10	20.0	21	130,000	5.5	5.2	5.3	----	----

TABLE No. 7.

Effluent from Twelve-foot Sprinkling Filter ½" to 1½" Stone

Period Covered 1907-8 From	To	Number of Samples	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp.	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day: Maximum	Minimum	Average	Population: Per Acre	Per Acre Foot
Aug. 1	Sept. 1	12	10.7	6.0	4.7	9.5	8.7	0.8	4.9	1.35	18.0	10	150,000	3.1	1.3	1.9	44,233	3,686
Sept. 4	Sept. 17	5	26.4	12.1	11.3	9.2	8.6	0.6	6.5	1.26	19.0	13	----------	3.8	2.6	3.2	76,113	6,343
Oct. 22	Oct. 27	3	42.0	23.3	18.7	10.0	----	----	20.0	1.00	3.3	14	160,000	5.1	2.8	3.6	90,539	7,545
Nov. 21	Nov. 26	3	76.0	32.0	44.0	11.0	----	----	11.0	0.80	15.0	13	100,000	5.3	2.2	3.4	48,258	4,022
Dec. 3	Dec. 29	7	63.0	30.0	33.0	10.0	----	----	9.8	0.50	19.0	14	120,000	5.5	2.3	2.8	49,454	4,121
Jan. 7	Jan. 30	6	55.8	35.3	20.5	8.3	5.9	2.4	7.4	0.48	17.0	16	130,000	5.2	3.0	3.7	49,454	4,121
Feb. 2	Feb. 25	6	37.7	24.7	13.0	8.0	6.8	1.2	6.8	0.13	17.0	17	80,000	4.6	2.5	3.6	49,454	4,121
Mar. 1	Mar. 24	5	53.2	31.2	22.0	8.9	7.5	1.4	5.5	0.30	19.0	16	110,000	5.0	3.0	3.3	49,454	4,121
Mar. 27	April 29	2	42.0	28.0	14.0	10.0	9.0	1.0	7.5	0.08	21.0	18	120,000	5.5	3.0	4.4	49,454	4,121
April 30	May 7	1	49.0	32.0	17.0	9.5	8.5	1.0	6.5	0.10	20.0	22	160,000	5.5	5.2	5.3	49,454	4,121

TABLE No. 8.

Settled Effluent from Twelve-foot Sprinkling Filter ½" to 1½" Stone

Aug. 1	Sept. 1	12	8.7	5.6	3.1	10.0	8.0	2.0	5.4	1.36	20.0	10	130,000	3.1	1.3	1.9	-------	-------
Sept. 4	Sept. 17	5	14.3	9.7	4.6	11.0	8.9	2.1	6.7	1.34	18.0	12	----------	3.8	2.6	3.2	-------	-------
Oct. 22	Oct. 27	3	40.0	23.5	16.5	11.0	----	----	20.0	1.00	3.3	15	140,000	5.1	2.8	3.6	-------	-------
Nov. 21	Nov. 26	3	44.7	22.0	22.7	10.0	----	----	11.0	0.93	18.0	11	100,000	5.3	2.2	3.4	-------	-------
Dec. 3	Dec. 29	7	34.1	17.0	17.1	10.0	----	----	9.7	0.54	22.0	14	50,000	5.5	2.3	2.8	-------	-------
Jan. 7	Jan. 30	6	38.3	26.0	12.3	8.5	6.2	2.3	7.2	0.49	16.0	15	2,600	5.2	3.1	3.7	-------	-------
Feb. 2	Feb. 25	6	25.2	16.8	8.4	6.8	5.8	1.0	6.8	0.12	17.0	17	10,100	4.6	2.5	3.6	-------	-------
Mar. 1	Mar. 24	5	26.1	17.4	8.7	7.9	7.1	0.8	5.5	0.19	20.0	15	1,170	5.0	3.0	3.3	-------	-------
Mar. 27	April 29	2	33.5	19.5	14.0	9.6	7.6	2.0	7.9	0.08	22.0	18	1,300	5.5	3.0	4.4	-------	-------
April 30	May 7	1	30.0	21.0	9.0	13.0	9.5	3.5	6.5	0.10	20.0	20	1,800	5.5	5.2	5.3	-------	-------

TABLE No. 9.

Effluent from Six-foot Sprinkling Filter 1" to 2" Stone

Aug. 1	Sept. 1	11	33.7	16.2	17.5	11.0	8.0	3.0	10.0	2.17	11.0	17	330,000	3.1	1.3	1.9	44,233	7,372
Sept. 4	Sept. 17	5	32.9	20.2	12.7	10.0	9.0	1.0	16.0	1.24	9.6	21	----------	3.8	2.6	3.2	76,113	12,685
Oct. 22	Oct. 27	3	40.3	30.7	9.6	14.0	----	----	20.0	0.30	0.7	24	230,000	5.1	2.8	3.6	90,539	15,090
Nov. 21	Nov. 26	3	76.0	40.7	35.3	13.0	----	----	15.0	1.13	8.0	17	210,000	5.3	2.2	3.4	48,258	8,043
Dec. 3	Dec. 29	7	75.0	41.6	33.4	13.0	----	----	17.0	0.73	9.3	25	210,000	5.5	2.3	2.8	49,454	8,242
Jan. 7	Jan. 30	6	63.0	52.3	10.7	9.7	8.2	1.5	14.0	0.62	6.8	24	160,000	5.2	3.1	3.7	49,454	8,242
Feb. 2	Feb. 25	6	75.8	59.0	16.8	11.0	9.2	1.8	14.0	0.23	8.0	30	170,000	4.6	2.5	3.6	49,454	8,242
Mar. 1	Mar. 24	5	124.0	103.0	21.0	14.0	9.8	4.2	14.0	0.28	9.4	39	300,000	5.0	3.0	3.3	49,454	8,242
Mar. 27	April 29	2	81.0	62.5	18.5	13.0	11.0	2.0	16.0	0.10	7.0	35	240,000	5.5	3.0	4.4	49,454	8,242
April 30	May 7	1	55.0	38.0	17.0	12.0	10.0	2.0	16.0	0.40	12.0	33	180,000	5.5	5.2	5.3	49,454	8,242

TABLE No. 10.

Settled Effluent from Six-foot Sprinkling Filter 1" to 2" Stone

Aug. 1	Sept. 1	11	11.4	7.3	4.1	8.4	7.0	1.4	12.0	2.60	13.0	14	250,000	3.1	1.3	1.9	-------	-------
Sept. 4	Sept. 17	5	19.5	14.6	4.9	9.6	8.6	1.0	16.0	1.08	6.0	16	----------	3.8	2.6	3.2	-------	-------
Oct. 22	Oct. 27	3	29.0	21.3	7.7	13.0	----	----	21.0	0.60	0.7	19	310,000	5.1	2.8	3.6	-------	-------
Nov. 21	Nov. 26	3	55.3	32.7	22.6	13.0	----	----	16.0	1.07	6.7	15	200,000	5.3	2.2	3.4	-------	-------
Dec. 3	Dec. 29	7	44.3	24.3	20.0	11.0	----	----	17.0	0.53	11.0	18	180,000	5.5	2.3	2.8	-------	-------
Jan. 7	Jan. 30	6	38.5	29.8	8.7	8.8	6.3	2.5	14.0	0.55	7.3	19	150,000	5.2	3.1	3.7	-------	-------
Feb. 2	Feb. 25	6	30.2	24.0	6.2	9.2	8.0	1.2	15.0	0.24	8.2	25	140,000	4.6	2.5	3.6	-------	-------
Mar. 1	Mar. 24	5	26.6	24.2	2.4	9.2	7.4	1.8	14.0	0.30	10.0	20	220,000	5.0	3.0	3.3	-------	-------
Mar. 27	April 29	2	38.0	27.5	10.5	12.0	10.0	2.0	16.0	0.13	7.5	23	180,000	5.5	3.0	4.4	-------	-------
April 30	May 7	1	44.0	33.0	11.0	10.0	9.0	1.0	16.0	0.40	10.0	26	150,000	5.5	5.2	5.3	-------	-------

TABLE No. 11.

Period Covered 1907-8		Number of Samples	Parts per Million										Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day			Population	
			Susp'd Solids			Nitrogen as													
						Organic													
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.	Free Ammonia	Nitrites	Nitrates				Maximum	Minimum	Average	Per Acre	Per Acre Foot
Effluent from Nine-foot Sprinkling Filter 1″ to 2″ Stone																			
Aug. 1	Sept. 1	11	13.7	8.7	5.0	9.4	8.7	0.7	7.9	2.20	14.0	13	280,000	3.1	1.3	1.9	44,233	4,915
Sept. 4	Sept. 17	5	21.7	14.0	7.7	8.3	7.9	0.4	11.0	1.52	13.0	14	----------	3.8	2.6	3.2	76,113	8,457
Oct. 22	Oct. 27	3	24.3	18.3	6.0	12.0	----	----	19.0	0.93	3.7	15	190,000	5.1	2.8	3.6	90,539	10,060
Nov. 21	Nov. 26	3	60.0	31.3	28.7	12.0	----	----	11.0	0.90	13.0	12	140,000	5.3	2.2	3.4	48,258	5,362
Dec. 3	Dec. 29	7	95.3	43.8	51.5	12.0	----	----	13.0	0.60	15.0	19	170,000	5.5	2.3	2.8	49,454	5,495
Jan. 7	Jan. 30	6	46.8	36.3	10.5	10.0	7.0	3.0	11.0	0.73	10.0	19	130,000	5.2	3.1	3.7	49,454	5,495
Feb. 2	Feb. 25	6	53.7	38.3	15.4	8.8	7.0	1.8	12.0	0.24	13.0	21	90,000	4.6	2.5	3.6	49,454	5,495
Mar. 1	Mar. 24	5	74.0	57.2	16.8	11.0	7.4	3.6	10.0	0.36	17.0	21	160,000	5.0	3.0	3.3	49,454	5,495
Mar. 27	April 29	2	56.5	36.5	20.0	11.0	9.5	1.5	13.0	0.20	25.0	20	140,000	5.5	3.0	4.4	49,454	5,495
April 30	May 7	1	50.0	36.0	14.0	11.0	10.0	1.0	12.0	0.20	25.0	28	150,000	5.5	5.2	5.3	49,454	5,495

TABLE No. 12.

Settled Effluent from Nine-foot Sprinkling Filter 1″ to 2″ Stone																			
Aug. 1	Sept. 1	11	9.9	6.2	3.7	7.8	6.6	1.2	8.5	2.50	15.0	12	240,000	3.1	1.3	1.9	----------	----------
Sept. 4	Sept. 17	5	14.5	10.0	4.5	8.1	7.4	0.7	12.0	1.44	12.0	13	----------	3.8	2.6	3.2	----------	----------
Oct. 22	Oct. 27	3	25.0	16.7	8.3	20.0	----	----	18.0	0.93	5.3	15	190,000	5.1	2.8	3.6	----------	----------
Nov. 21	Nov. 26	3	42.0	22.0	20.0	10.0	----	----	11.0	1.07	15.0	11	110,000	5.3	2.2	3.4	----------	----------
Dec. 3	Dec. 29	7	45.0	21.3	23.7	11.0	----	----	13.0	0.54	14.0	16	130,000	5.5	2.3	2.8	----------	----------
Jan. 7	Jan. 30	6	40.0	27.5	12.5	8.9	7.7	1.2	11.0	0.53	11.0	16	160,000	5.2	3.1	3.7	----------	----------
Feb. 2	Feb. 25	6	31.5	23.5	8.0	8.3	6.8	1.5	12.0	0.22	12.0	20	110,000	4.6	2.5	3.6	----------	----------
Mar. 1	Mar. 24	5	25.4	19.6	5.8	8.2	6.3	1.9	10.0	0.32	16.0	19	120,000	5.0	3.0	3.3	----------	----------
Mar. 27	April 29	2	34.5	24.5	10.0	10.0	8.5	1.5	13.0	0.18	19.0	19	120,000	5.5	3.0	4.4	----------	----------
April 30	May 7	1	36.0	25.0	11.0	12.0	9.0	3.0	12.0	0.30	20.0	28	240,000	5.5	5.2	5.3	----------	----------

TABLE No. 13.

Effluent from Twelve-foot Sprinkling Filter 1″ to 2″ Stone																			
Aug. 1	Sept. 1	11	14.4	8.0	6.4	9.3	8.4	0.9	5.6	2.01	18.0	12	200,000	3.1	1.3	1.9	44,233	4,915
Sept. 4	Sept. 17	5	32.5	16.8	15.7	8.8	8.4	0.4	9.4	1.70	16.0	15	----------	3.8	2.6	3.2	76,113	8,457
Oct. 22	Oct. 27	3	22.3	14.0	8.3	11.0	----	----	18.0	0.80	6.3	16	210,000	5.1	2.8	3.6	90,539	10,060
Nov. 21	Nov. 26	3	62.0	34.7	27.3	12.0	----	----	10.0	0.97	17.0	16	200,000	5.3	2.2	3.4	48,258	5,362
Dec. 3	Dec. 29	7	79.7	43.4	36.3	13.0	----	----	12.0	0.54	19.0	20	150,000	5.5	2.3	2.8	49,454	5,495
Jan. 7	Jan. 30	6	39.7	30.7	9.0	7.7	6.0	1.7	8.5	0.45	15.0	15	110,000	5.2	3.0	3.7	49,454	5,495
Feb. 2	Feb. 25	6	36.0	26.2	9.8	9.1	6.9	2.2	8.6	0.25	16.0	18	110,000	4.6	2.5	3.6	49,454	5,495
Mar. 1	Mar. 24	5	34.2	27.2	7.0	8.3	7.1	1.2	7.1	0.28	20.0	18	150,000	5.0	3.0	3.3	49,454	5,495
Mar. 27	April 29	2	55.5	39.0	16.5	12.0	10.0	2.0	8.5	0.08	24.0	20	120,000	5.5	3.0	4.4	49,454	5,495
April 30	May 7	1	50.0	32.0	18.0	11.0	9.0	2.0	8.0	0.10	25.0	25	160,000	5.5	5.2	5.3	49,454	5,495

TABLE No. 14.

Settled Effluent from Twelve-foot Sprinkling Filter 1″ to 2″ Stone																			
Aug. 1	Sept. 1	11	9.8	6.5	3.3	8.8	7.8	1.0	5.9	2.35	19.0	13	140,000	3.1	1.3	1.9	----------	----------
Sept. 4	Sept. 17	5	14.4	7.4	7.0	9.0	8.2	0.8	9.8	1.62	14.0	13	----------	3.8	2.6	3.2	----------	----------
Oct. 22	Oct. 27	3	26.3	20.0	6.3	11.0	----	----	19.0	1.20	6.3	14	170,000	5.1	2.8	3.6	----------	----------
Nov. 21	Nov. 26	3	46.0	22.7	23.3	11.0	----	----	10.0	0.87	17.0	10	120,000	5.3	2.2	3.4	----------	----------
Dec. 3	Dec. 29	7	43.7	23.1	20.6	10.0	----	----	11.0	0.56	20.0	15	100,000	5.5	2.3	2.8	----------	----------
Jan. 7	Jan. 30	6	32.0	24.0	8.0	7.4	5.7	1.7	8.9	0.43	15.0	13	100,000	5.2	3.0	3.7	----------	----------
Feb. 2	Feb. 25	6	33.0	21.0	12.0	7.6	6.8	0.8	8.6	0.14	16.0	16	90,000	4.6	2.5	3.6	----------	----------
Mar. 1	Mar. 24	5	28.0	18.0	10.0	8.3	7.1	1.2	6.9	0.20	20.0	15	110,000	5.0	3.0	3.3	----------	----------
Mar. 27	April 29	2	40.0	27.0	13.0	11.0	10.0	1.0	8.5	0.20	23.0	17	100,000	5.5	3.0	4.4	----------	----------
April 30	May 7	1	37.0	23.0	14.0	9.0	9.0	0.0	8.0	0.10	25.0	20	250,000	5.5	5.2	5.3	----------	----------

TABLE No. 15.

Period Covered 1907-8 From	To	Number of Samples	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Nitrogen as Organic Dissol'd	Nitrogen as Organic Susp.	Nitrogen as Free Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day: Maximum	Minimum	Average	Population: Per Acre	Per Acre Foot
Effluent from Six-foot Sprinkling Filter 2″ to 4″ Stone.																		
Sept. 20	Oct. 3	6	36.2	29.2	7.0	13.0	12.0	1.0	16.0	0.57	2.0	18	1,200,000	4.0	2.9	3.6	76,113	12,685
Oct. 6	Nov. 4	6	117.0	63.7	53.3	15.0	----	----	22.0	0.52	1.0	30	530,000	5.1	1.4	3.2	90,539	15,090
Nov. 15	Nov. 29	3	108.0	78.7	29.3	20.0	----	----	24.0	0.80	1.7	34	500,000	5.3	2.0	4.1	96,517	16,086
Dec. 11	Dec. 16	3	50.7	34.0	16.7	16.0	----	----	17.0	0.87	5.0	21	310,000	5.5	2.5	4.0	49,454	8,242
Jan. 6	Jan. 21	4	52.0	44.5	7.5	9.0	7.3	1.7	17.0	0.23	4.5	29	300,000	5.2	3.1	3.6	49,454	8,242
Feb. 3	Feb. 26	6	48.7	38.2	10.5	11.0	8.5	2.5	16.0	0.28	4.0	30	740,000	4.8	2.5	3.7	49,454	8,242
Feb. 29	Mar. 23	5	51.4	42.0	9.4	12.0	9.2	2.8	15.0	0.24	4.2	28	420,000	5.0	3.0	3.2	49,454	8,242
Mar. 28	April 10	1	52.0	50.0	2.0	18.0	16.0	2.0	18.0	0.40	2.0	28	300,000	4.1	3.0	3.6	49,454	8,242
May 25	May 26	1	123.0	105.0	18.0	15.0	12.0	3.0	13.0	0.20	1.0	102	----------	----	----	----	49,454	8,242
July 13	Aug. 8	2	61.5	44.5	17.0	8.0	5.5	2.5	13.0	1.00	3.5	23	540,000	5.6	4.4	5.1	49,454	8,242
Sept. 7	Oct. 3	2	39.5	34.5	5.0	8.5	7.0	1.5	17.0	0.50	1.8	24	460,000	5.6	4.8	5.2	49,454	8,242

TABLE No. 16.

Settled Effluent from Six-foot Sprinkling Filter 2″ to 4″ Stone.																		
Sept. 20	Oct. 3	6	27.0	20.7	6.3	14.0	13.0	1.0	16.0	0.62	2.2	14	1,100,000	4.0	2.9	3.6	-------	-------
Oct. 6	Nov. 4	6	62.4	4.0	22.4	12.0	----	----	23.0	0.50	1.2	22	260,000	5.1	1.4	3.2	-------	-------
Nov. 15	Nov. 29	3	46.0	32.0	14.0	17.0	----	----	23.0	0.80	2.0	24	120,000	5.3	2.0	4.1	-------	-------
Dec. 11	Dec. 16	3	36.7	21.3	15.4	12.0	----	----	18.0	0.63	5.0	18	240,000	5.5	2.5	4.0	-------	-------
Jan. 6	Jan. 21	4	25.0	21.5	3.5	9.3	6.5	2.8	17.0	0.28	4.5	21	260,000	5.2	3.1	3.6	-------	-------
Feb. 3	Feb. 26	6	31.7	24.3	7.4	9.5	7.7	1.8	16.0	0.31	4.0	26	480,000	4.8	2.5	3.7	-------	-------
Feb. 29	Mar. 23	5	30.0	24.8	5.2	11.0	8.2	2.8	16.0	0.28	4.4	23	320,000	5.0	3.0	3.2	-------	-------
Mar. 28	April 10	1	42.0	42.0	0.0	18.0	16.0	2.0	18.0	0.20	2.0	21	270,000	4.1	3.0	3.6	-------	-------
May 25	May 26	1	68.0	50.0	18.0	13.0	11.0	2.0	13.0	0.20	1.0	62	----------	----	----	----	-------	-------
July 13	Aug. 8	2	33.0	24.0	9.0	7.0	5.0	2.0	13.0	0.95	4.0	14	500,000	5.6	4.4	5.1	-------	-------
Sept. 7	Oct. 3	2	26.0	22.5	3.5	7.5	6.5	1.0	17.0	0.45	2.3	19	400,000	5.6	4.8	5.2	-------	-------

TABLE No. 17.

Effluent from Nine-foot Sprinkling Filter 2″ to 4″ Stone																		
Sept. 20	Oct. 3	6	40.7	25.4	15.3	16.0	13.0	3.0	15.0	0.97	3.8	13	1,200,000	4.0	2.9	3.6	76,113	8,457
Oct. 6	Nov. 4	6	104.0	56.5	47.5	12.0	----	----	20.0	1.00	3.7	23	330,000	5.1	1.4	3.2	90,539	10,060
Nov. 15	Nov. 29	3	74.7	48.7	26.0	17.0	----	----	23.0	1.30	4.0	23	530,000	5.3	2.0	4.1	96,517	10,724
Dec. 11	Dec. 16	3	44.7	28.0	16.7	14.0	----	----	15.0	0.77	7.3	16	290,000	5.5	2.5	4.0	49,454	5,495
Jan. 6	Jan. 21	4	69.9	55.7	14.2	9.5	7.5	2.0	14.0	0.28	9.0	22	1,000,000	5.2	3.1	3.6	49,454	5,495
Feb. 3	Feb. 26	6	45.0	35.5	9.5	8.7	6.5	2.2	14.0	0.23	8.8	24	600,000	4.8	2.5	3.7	49,454	5,495
Feb. 29	Mar. 23	5	74.0	56.4	17.6	12.0	10.0	2.0	12.0	0.30	12.0	24	410,000	5.0	3.0	3.2	49,454	5,495
Mar. 28	April 10	1	156.0	124.0	32.0	23.0	17.0	6.0	15.0	0.40	15.0	28	400,000	4.1	3.0	3.6	49,454	5,495
May 25	May 26	1	61.0	53.0	8.0	14.0	12.0	2.0	11.0	0.40	5.0	66	----------	----	----	----	49,454	5,495
July 13	Aug. 8	2	41.5	33.0	8.5	7.8	4.8	3.0	8.8	1.70	8.5	13	660,000	5.6	4.4	5.1	49,454	5,495
Sept. 7	Oct. 3	2	35.5	29.0	6.5	8.0	6.5	1.5	14.0	0.40	13.0	20	460,000	5.6	4.8	5.2	49,454	5,495

TABLE No. 18.

Settled Effluent from Nine-foot Sprinkling Filter 2″ to 4″ Stone																		
Sept. 20	Oct. 8	6	30.7	24.2	6.5	13.0	12.0	1.0	15.0	0.87	3.9	13	1,000,000	4.0	2.9	3.6	-------	-------
Oct. 6	Nov. 4	6	51.9	34.2	17.7	11.0	----	----	20.0	0.92	4.2	20	250,000	5.1	1.4	3.2	-------	-------
Nov. 15	Nov. 29	3	75.3	44.0	31.3	14.0	----	----	22.0	1.30	4.3	22	350,000	5.3	2.0	4.1	-------	-------
Dec. 11	Dec. 16	3	26.0	16.7	9.3	12.0	----	----	15.0	0.57	5.0	15	170,000	5.5	2.5	4.0	-------	-------
Jan. 6	Jan. 21	4	19.5	16.0	3.5	9.3	7.3	2.0	14.0	0.65	8.5	19	370,000	5.2	3.1	3.6	-------	-------
Feb. 3	Feb. 26	6	25.8	19.9	5.9	8.5	7.3	1.2	13.0	0.27	8.7	23	240,000	4.8	2.5	3.7	-------	-------
Feb. 29	Mar. 23	5	25.3	18.7	6.6	9.0	7.2	1.8	13.0	0.28	12.0	20	190,000	5.0	3.0	3.2	-------	-------
Mar. 28	April 10	1	42.0	30.0	12.0	21.0	15.0	6.0	15.0	0.30	10.0	19	170,000	4.1	3.0	3.6	-------	-------
May 25	May 26	1	49.0	46.0	3.0	13.0	11.0	2.0	11.0	0.20	2.0	62	----------	----	----	----	-------	-------
July 13	Aug. 8	2	24.0	20.5	3.5	5.3	4.3	1.0	8.8	1.55	8.5	14	260,000	5.6	4.4	5.1	-------	-------
Sept. 7	Oct. 3	2	20.5	18.0	2.5	6.5	5.5	1.0	13.0	0.40	12.0	19	270,000	5.6	4.8	5.2	-------	-------

TABLE No. 19.

Period Covered 1907-8 From	To	Number of Samples	Parts per Million: Susp'd Solids Total	Susp'd Solids Loss on Ignition	Susp'd Solids Fixed	Nitrogen as Organic Total	Organic Dissol'd	Organic Susp.	Free Ammonia	Nitrites	Nitrates	Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day Maximum	Minimum	Average	Population Per Acre	Per Acre Foot
Effluent from Twelve-foot Sprinkling Filter 2″ to 4″ Stone																		
Sept. 20	Oct. 3	6	45.3	26.7	18.6	14.0	13.0	1.0	14.0	1.08	4.2	14	1,200,000	4.0	2.9	3.6	76,113	6,3[illegible]
Oct. 6	Nov. 4	6	77.7	44.2	33.5	11.0	----	----	18.0	1.23	4.7	22	200,000	5.1	1.4	3.2	99,[illegible]	7,[illegible]
Nov. 15	Nov. 29	3	88.7	48.0	40.7	15.0	----	----	21.0	1.90	8.0	24	440,000	5.3	2.0	4.1	96,517	8,[illegible]
Dec. 11	Dec. 16	3	36.7	22.7	14.0	12.0	----	----	14.0	0.60	9.0	14	210,000	5.5	2.5	4.0	49,454	4,[illegible]
Jan. 6	Jan. 21	4	32.0	24.7	7.3	8.4	6.9	1.5	12.0	0.23	14.0	18	320,000	5.2	3.1	3.6	49,454	4,[illegible]
Feb. 3	Feb. 26	6	39.3	30.0	9.3	7.9	6.6	1.3	12.0	0.23	10.0	22	260,000	4.8	2.5	3.7	49,454	4,[illegible]
Feb. 29	Mar. 23	5	47.8	36.2	11.6	9.4	8.2	1.2	11.0	0.24	14.0	22	190,000	5.0	3.0	3.2	49,454	4,[illegible]
Mar. 28	April 10	1	56.0	46.0	10.0	21.0	19.0	2.0	11.0	0.40	20.0	22	180,000	4.1	3.0	3.6	49,454	4,[illegible]
May 25	May 26	1	90.0	73.0	17.0	15.0	10.0	5.0	11.0	0.80	10.0	70	----------	-----	-----	-----	49,454	4,[illegible]
July 13	Aug. 8	2	48.5	28.0	20.5	6.3	4.8	1.5	6.3	1.80	19.0	16	340,000	5.6	4.4	5.1	49,454	4,121
Sept. 7	Oct. 3	2	31.5	26.0	5.5	7.5	6.0	1.5	11.0	0.90	16.0	19	330,000	5.6	4.8	5.2	49,454	4,[illegible]

TABLE No. 20.

Settled Effluent from Twelve-foot Sprinkling Filter 2″ to 4″ Stone																		
Sept. 20	Oct. 3	6	19.9	12.9	7.0	12.0	11.0	1.0	14.0	1.12	5.1	11	900,000	4.0	2.9	3.6	-----	-----
Oct. 6	Nov. 4	6	40.2	24.7	15.5	9.8	----	----	18.0	1.04	5.2	17	180,000	5.1	1.4	3.2	-----	-----
Nov. 15	Nov. 29	3	67.3	36.0	31.3	15.0	----	----	22.0	1.30	8.7	20	300,000	5.3	2.0	4.1	-----	-----
Dec. 11	Dec. 16	3	26.0	17.3	8.7	12.0	----	----	14.0	0.50	11.0	13	180,000	5.5	2.5	4.0	-----	-----
Jan. 6	Jan. 21	4	20.5	17.0	3.5	6.9	6.4	0.5	13.0	0.20	13.0	16	220,000	5.2	3.1	3.6	-----	-----
Feb. 3	Feb. 26	6	26.3	20.6	5.7	8.1	6.6	1.5	12.0	0.20	10.0	18	260,000	4.8	2.5	3.7	-----	-----
Feb. 29	Mar. 23	5	17.7	14.6	3.1	8.3	6.9	1.4	16.0	0.23	12.0	16	160,000	5.0	3.0	3.2	-----	-----
Mar. 28	April 10	1	28.0	28.0	0.0	19.0	17.0	2.0	11.0	0.30	10.0	18	160,000	4.1	3.0	3.6	-----	-----
May 25	May 26	1	63.0	54.0	9.0	12.0	10.0	2.0	11.0	0.60	8.0	52	----------	-----	-----	-----	-----	-----
July 13	Aug. 8	2	25.5	17.0	8.5	4.8	4.3	0.5	6.3	1.80	15.0	10	250,000	5.6	4.4	5.1	-----	-----
Sept. 7	Oct. 3	2	23.5	20.0	3.5	6.0	4.5	1.5	12.0	0.65	15.0	14	260,000	5.6	4.8	5.2	-----	-----

TABLE No. 21.

Effluent from Six-foot Sprinkling Filter 4″ to 6″ Stone																		
Sept. 20	Oct. 3	6	38.8	27.3	11.5	15.0	11.0	4.0	17.0	0.43	1.2	21	1,200,000	4.0	2.9	3.6	76,[illegible]	[illegible]
Oct. 6	Nov. 4	6	103.0	66.4	36.6	15.0	----	----	24.0	0.13	0.4	34	390,000	5.1	1.4	3.2	99,[illegible]	[illegible]
Nov. 15	Nov. 29	3	92.0	77.3	14.7	18.0	----	----	24.0	0.50	0.7	31	1,000,000	5.3	2.0	4.1	96,[illegible]	[illegible]
Dec. 11	Dec. 16	3	52.7	43.3	9.4	13.0	----	----	18.0	0.20	2.7	24	610,000	5.5	2.5	4.0	49,[illegible]	[illegible]
Jan. 6	Jan. 21	4	60.7	51.0	9.7	10.0	6.5	3.5	20.0	0.13	1.8	39	470,000	5.2	3.1	3.6	49,[illegible]	[illegible]
Feb. 3	Feb. 26	6	94.0	76.8	17.2	13.0	9.0	4.0	18.0	0.14	1.3	41	950,000	4.8	2.5	3.7	49,[illegible]	[illegible]
Feb. 29	Mar. 5	2	94.5	81.0	13.5	12.0	9.0	3.0	19.0	0.15	0.5	41	1,000,000	3.5	3.1	3.2	49,[illegible]	[illegible]

TABLE No. 22.

Settled Effluent from Six-foot Sprinkling Filter 4″ to 6″ Stone																		
Sept. 20	Oct. 3	6	31.9	27.7	4.2	16.0	14.0	2.0	16.0	0.58	1.4	19	1,500,000	4.0	2.9	3.6	-----	-----
Oct. 6	Nov. 4	6	61.5	41.4	20.1	12.0	----	----	23.0	0.27	0.8	31	400,000	5.1	1.4	3.2	-----	-----
Nov. 15	Nov. 29	3	53.3	43.3	10.0	18.0	----	----	24.0	0.40	1.0	33	880,000	5.3	2.0	4.1	-----	-----
Dec. 11	Dec. 16	3	35.3	25.3	10.0	14.0	----	----	18.0	0.23	1.7	26	610,000	5.5	2.5	4.0	-----	-----
Jan. 6	Jan. 21	4	34.4	29.4	5.0	11.0	7.8	3.2	19.0	0.17	1.8	29	610,000	5.2	3.1	3.6	-----	-----
Feb. 3	Feb. 26	6	47.1	37.9	9.2	13.0	9.8	3.2	17.0	0.13	1.3	34	840,000	4.8	2.5	3.7	-----	-----
Feb. 29	Mar. 5	2	25.8	21.8	4.0	12.0	9.0	3.0	18.0	0.15	0.5	36	630,000	3.5	3.1	3.2	-----	-----

TABLE No. 23.

Period Covered 1907-8		Number of Samples	Parts per Million											Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day			Population	
			Susp'd Solids			Nitrogen as														
						Organic				Ammonia										
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.	Free		Nitrites	Nitrates				Maximum	Minimum	Average	Per Acre	Per Acre Foot
Effluent from Nine-foot Sprinkling Filter 4″ to 6″ Stone																				
Sept. 20	Oct. 3	6	47.3	34.9	12.4	14.0	12.0	2.0	16.0	0.58	2.6	15	1,300,000	4.0	2.9	3.6	76,113	8,457		
Oct. 6	Nov. 4	6	99.0	61.7	37.3	13.0	----	----	23.0	0.44	1.5	25	360,000	5.1	1.4	3.2	90,539	10,060		
Nov. 15	Nov. 29	3	79.3	64.0	15.3	18.0	----	----	23.0	0.47	1.3	27	900,000	5.3	2.0	4.1	96,517	10,724		
Dec. 11	Dec. 16	3	40.0	28.0	12.0	11.0	----	----	18.0	0.70	2.7	16	470,000	5.5	2.5	4.0	49,454	5,495		
Jan. 6	Jan. 21	4	48.8	39.0	9.8	11.0	8.5	2.5	19.0	0.19	3.5	24	480,000	5.2	3.1	3.6	49,454	5,495		
Feb. 3	Feb. 26	6	46.0	37.5	8.5	9.8	7.8	2.0	17.0	0.23	1.8	29	590,000	4.8	2.5	3.7	49,454	5,495		
Feb. 29	Mar. 5	2	38.0	31.5	6.5	9.0	7.5	1.5	18.0	0.30	1.5	27	750,000	3.5	3.1	3.2	49,454	5,495		

TABLE No. 24.

Settled Effluent from Nine-foot Sprinkling Filter 4″ to 6″ Stone

Sept. 20	Oct. 3	6	21.3	15.5	5.8	14.0	11.0	3.0	17.0	0.52	2.4	16	1,000,000	4.0	2.9	3.6	-------	-------		
Oct. 6	Nov. 4	6	52.9	36.5	16.4	12.0	----	----	23.0	0.52	1.5	23	400,000	5.1	1.4	3.2	-------	-------		
Nov. 15	Nov. 29	3	63.3	48.7	14.6	17.0	----	----	24.0	0.37	1.3	26	590,000	5.3	2.0	4.1	-------	-------		
Dec. 11	Dec. 16	3	36.0	24.0	12.0	11.0	----	----	18.0	0.57	4.3	19	340,000	5.5	2.5	4.0	-------	-------		
Jan. 6	Jan. 21	4	29.8	24.7	5.1	11.0	7.5	3.5	18.0	0.25	3.5	22	490,000	5.2	3.1	3.6	-------	-------		
Feb. 3	Feb. 26	6	28.9	24.5	4.4	9.8	8.2	1.6	17.0	0.25	2.0	28	580,000	4.8	2.5	3.7	-------	-------		
Feb. 29	Mar. 5	2	24.8	20.0	4.8	9.5	8.0	1.5	18.0	0.20	1.5	28	540,000	3.5	3.1	3.2	-------	-------		

TABLE No. 25.

Effluent from Twelve-foot Sprinkling Filter 4″ to 6″ Stone

Sept. 20	Oct. 3	6	37.0	26.2	10.8	14.0	11.0	3.0	15.0	0.74	3.2	13	1,000,000	4.0	2.9	3.6	76,113	6,343		
Oct. 6	Nov. 4	6	98.5	58.3	40.2	13.0	----	----	22.0	0.60	1.9	24	350,000	5.1	1.4	3.2	90,539	7,545		
Nov. 15	Nov. 29	3	80.7	52.7	28.0	16.0	----	----	23.0	1.00	2.0	24	570,000	5.3	2.0	4.1	96,517	8,043		
Dec. 11	Dec. 16	3	63.3	38.7	24.6	13.0	----	----	17.0	0.80	4.7	18	410,000	5.5	2.5	4.0	49,454	4,121		
Jan. 6	Jan. 21	4	35.7	27.9	7.8	10.0	7.5	2.7	16.0	0.23	5.3	21	460,000	5.2	3.1	3.6	49,454	4,121		
Feb. 3	Feb. 26	6	44.0	35.7	8.3	10.0	8.8	1.2	15.0	0.16	4.0	25	650,000	4.8	2.5	3.7	49,454	4,121		
Feb. 29	Mar. 5	2	48.5	38.5	10.0	12.0	9.5	2.5	16.0	0.20	2.5	25	810,000	3.5	3.1	3.2	49,454	4,121		
May 25	May 26	1	91.0	71.0	20.0	14.0	9.0	5.0	13.0	0.50	1.0	66	----------	-----	-----	-----	49,454	4,121		
July 13	Aug. 8	2	67.0	49.0	18.0	8.0	5.0	3.0	12.0	1.50	5.0	17	450,000	5.6	4.4	5.1	49,454	4,121		
Sept. 7	Oct. 3	2	32.5	27.0	5.5	7.5	6.0	1.5	15.0	0.30	4.5	17	440,000	5.6	4.8	5.2	49,454	4,121		

TABLE No. 26.

Settled Effluent from Twelve-foot Sprinkling Filter 4″ to 6″ Stone

Sept. 20	Oct. 3	6	20.9	14.9	6.0	13.0	12.0	1.0	16.0	0.63	3.1	14	1,200,000	4.0	2.9	3.6	-------	-------		
Oct. 6	Nov. 4	6	49.7	32.0	17.7	11.0	----	----	22.0	0.55	3.3	23	390,000	5.1	1.4	3.2	-------	-------		
Nov. 15	Nov. 29	3	63.3	40.7	22.6	15.0	----	----	24.0	0.53	3.3	25	620,000	5.3	2.0	4.1	-------	-------		
Dec. 11	Dec. 16	3	33.3	24.7	8.6	13.0	----	----	18.0	0.47	5.7	18	260,000	5.5	2.5	4.0	-------	-------		
Jan. 6	Jan. 21	4	30.9	24.9	6.0	7.8	5.5	2.3	17.0	0.20	5.3	21	530,000	5.2	3.1	3.6	-------	-------		
Feb. 3	Feb. 26	6	24.8	20.5	4.3	9.3	7.5	1.8	16.0	0.19	4.2	25	310,000	4.8	2.5	3.7	-------	-------		
Feb. 29	Mar. 5	2	21.3	17.0	4.3	8.5	8.5	0.0	17.0	0.15	2.5	24	360,000	3.5	3.1	3.2	-------	-------		
May 25	May 26	1	46.0	43.0	3.0	15.0	12.0	3.0	12.0	0.40	1.0	60	----------	-----	-----	-----	-------	-------		
July 13	Aug. 8	2	41.5	24.0	17.0	5.5	5.0	0.5	12.0	1.30	6.5	16	310,000	5.6	4.4	5.1	-------	-------		
Sept. 7	Oct. 3	2	26.0	23.5	2.5	7.5	5.5	2.0	15.0	0.30	7.5	18	270,000	5.6	4.8	5.2	-------	-------		

TABLE No. 27.

Period Covered 1908		Number of Samples	Parts per Million										Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day			Population	
			Susp'd Solids			Nitrogen as													
						Organic													
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.	Free Ammonia	Nitrites	Nitrates				Maximum	Minimum	Average	Per Acre	Per Acre Foot
Effluent from Ten and One-half Foot Sprinkling Filter ½" to 1½" Stone																			
June 8	July 11	3	31.7	22.0	9.7	5.8	5.5	0.3	3.8	0.33	18.0		16	160,000	5.5	4.3	4.9	49,454	4,710
Aug. 10	Sept. 5	2	30.0	22.0	8.0	5.5	4.3	1.2	3.5	0.25	13.0		11	250,000	5.1	4.7	4.9	49,454	4,710
Oct. 5	Oct. 17	1	8.0	2.0	6.0	5.0	4.0	1.0	13.0	0.60	10.0		12	390,000	5.8	4.6	5.1	49,454	4,710

TABLE No. 28.

Settled Effluent from Ten and One-half Foot Sprinkling Filter ½" to 1½" Stone

June 8	July 11	3	26.7	16.3	10.4	6.2	5.5	0.7	3.8	0.23	20.0		15	6,400	5.5	4.3	4.9	------	------
Aug. 10	Sept. 5	2	24.0	18.0	6.0	5.0	4.5	0.5	3.5	0.30	13.0		12	4,600	5.1	4.7	4.9	------	------
Oct. 5	Oct. 17	1	9.0	2.0	7.0	6.0	4.0	2.0	13.0	0.30	10.0		14	110,000	5.8	4.6	5.1	------	------

TABLE No. 29.

Effluent from Four and One-half Foot Sprinkling Filter 1" to 2" Stone

June 8	July 11	3	41.3	34.7	6.6	10.0	8.3	1.7	13.0	0.37	3.7		26	320,000	5.5	4.3	4.9	49,454	10,999
Aug. 10	Sept. 5	2	64.5	47.0	17.5	7.5	5.0	2.5	15.0	0.30	4.0		25	410,000	5.1	4.7	4.9	49,454	10,999
Oct. 5	Oct. 17	1	13.0	10.0	3.0	5.0	4.0	1.0	23.0	0.10	1.0		32	1,100,000	5.8	4.6	5.1	49,454	10,999

TABLE No. 30.

Settled Effluent from Four and One-half Foot Sprinkling Filter 1" to 2" Stone

June 8	July 11	3	19.7	15.3	4.4	8.7	8.0	0.7	13.0	0.37	4.2		16	230,000	5.5	4.3	4.9	-----	-----
Aug. 10	Sept. 5	2	25.0	20.5	4.5	6.0	5.0	1.0	15.0	0.35	4.0		15	280,000	5.1	4.7	4.9	-----	-----
Oct. 5	Oct. 17	1	11.0	10.0	1.0	5.0	5.0	0.0	22.0	0.10	1.0		28	990,000	5.8	4.6	5.1	-----	-----

TABLE No. 31.

Effluent from Seven and One-half Foot Sprinkling Filter 1" to 2" Stone

June 8	July 11	3	36.7	28.7	8.0	8.7	8.0	0.7	9.7	0.63	12.0		16	180,000	5.5	4.3	4.9	49,454	6,599
Aug. 10	Sept. 5	2	44.5	33.0	11.5	8.7	6.7	2.0	8.3	0.60	14.0		16	290,000	5.1	4.7	4.9	49,454	6,599
Oct. 5	Oct. 17	1	9.0	5.0	4.0	4.0	3.0	1.0	18.0	0.30	4.0		15	620,000	5.8	4.6	5.1	49,454	6,599

TABLE No. 32.

Settled Effluent from Seven and One-half Foot Sprinkling Filter 1" to 2" Stone

June 8	July 11	3	27.0	20.3	6.7	7.5	6.5	1.0	9.2	0.67	11.0		16	140,000	5.5	4.3	4.9	--	--
Aug. 10	Sept. 5	2	31.0	21.5	9.5	7.7	5.7	2.0	7.7	0.55	7.5		16	220,000	5.1	4.7	4.9	--	--
Oct. 5	Oct. 17	1	6.0	4.0	2.0	6.0	5.0	1.0	19.0	0.20	4.0		28	610,000	5.8	4.6	5.1	--	--

TABLE No. 33.

Period Covered 1908		Number of Samples	Parts per Million										Bacteria per C C.	Rate of Filtration Million Gallons per Acre per Day			Population	
			Susp'd Solids			Nitrogen as						Oxygen Consumed						
						Organic			Free Ammonia	Nitrites	Nitrates							
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.						Maximum	Minimum	Average	Per Acre	Per Acre Foot
Effluent from Ten and One-half Foot Sprinkling Filter 1″ to 2″ Stone																		
June 8	July 11	3	24.7	19.7	5.0	7.0	5.7	1.3	5.3	0.57	20.0	16	160,000	5.5	4.3	4.9	49,454	4,710
Aug. 10	Sept. 5	2	50.5	34.5	16.0	9.0	6.3	2.7	4.3	0.40	18.0	16	340,000	5.1	4.7	4.9	49,454	4,710
Oct. 5	Oct. 17	1	13.0	7.0	6.0	4.0	2.0	2.0	17.0	1.00	7.0	20	440,000	5.8	4.6	5.1	49,454	4,710

TABLE No. 34.

Settled Effluent from Ten and One-half Foot Sprinkling Filter 1″ to 2″ Stone

June 8	July 11	3	26.0	18.0	8.0	5.7	5.0	0.7	5.3	0.53	20.0	12	170,000	5.5	4.3	4.9	-------	-------
Aug. 10	Sept. 5	2	32.0	20.0	12.0	7.3	4.7	2.6	4.3	0.40	16.0	12	250,000	5.1	4.7	4.9	-------	-------
Oct. 5	Oct. 17	1	11.0	3.0	8.0	3.0	3.0	0.0	17.0	0.80	7.0	14	360,000	5.8	4.6	5.1	-------	-------

TABLE No. 35.

Effluent from Four and One-half Foot Sprinkling Filter 1″ to 3″ Stone

June 8	July 11	3	36.3	28.7	7.6	11.0	9.0	2.0	14.0	0.30	1.2	27	600,000	5.5	4.3	4.9	49,454	10,990
Aug. 10	Sept. 5	2	38.5	28.0	10.5	6.5	5.0	1.5	15.0	0.45	4.0	20	610,000	5.1	4.7	4.9	49,454	10,990
Oct. 5	Oct. 17	1	19.0	13.0	6.0	4.0	3.0	1.0	22.0	0.00	1.0	31	1,130,000	5.8	4.6	5.1	49,454	10,990

TABLE No. 36.

Settled Effluent from Four and One-half Foot Sprinkling Filter 1″ to 3″ Stone

June 8	July 11	3	24.7	22.7	2.0	10.0	9.3	0.7	14.0	0.27	0.7	24	62,000	5.5	4.3	4.9	-------	-------
Aug. 10	Sept. 5	2	30.0	23.0	7.0	5.5	4.5	1.0	15.0	0.40	3.5	18	10,200	5.1	4.7	4.9	-------	-------
Oct. 5	Oct. 17	1	17.0	11.0	6.0	7.0	4.0	3.0	21.0	0.00	1.0	34	150,000	5.8	4.6	5.1	-------	-------

TABLE No. 37.

Effluent from Six-foot Sprinkling Filter 1″ to 3″ Stone

July 13	Aug. 8	2	40.5	28.0	12.5	6.5	4.5	2.0	11.0	0.90	5.5	19	420,000	5.6	4.4	5.1	49,454	8,242
Sept. 7	Oct. 3	2	35.0	28.5	6.5	8.0	6.0	2.0	15.0	0.30	5.0	25	300,000	5.6	4.8	5.2	49,454	8,242

TABLE No. 38.

Settled Effluent from Six-foot Sprinkling Filter 1″ to 3″ Stone

July 13	Aug. 8	2	24.0	20.5	3.5	7.0	4.5	2.5	11.0	1.10	5.0	14	58,000	5.6	4.4	5.1	-------	-------
Sept. 7	Oct. 3	2	26.0	23.0	3.0	6.5	5.5	1.0	16.0	0.15	4.5	22	29,000	5.6	4.8	5.2	-------	-------

TABLE No. 39.

Period Covered 1908		Number of Samples	Parts per Million										Oxygen Consumed	Bacteria per C. C.	Rate of Filtration Million Gallons per Acre per Day			Population	
			Susp'd Solids			Nitrogen as													
						Organic													
From	To		Total	Loss on Ignition	Fixed	Total	Dissol'd	Susp.	Free Ammonia	Nitrites	Nitrates				Maximum	Minimum	Average	Per Acre	Per Acre Foot
Effluent from Seven and One-half Foot Sprinkling Filter 1″ to 3″ Stone																			
June 8	July 11	3	17.3	15.3	2.0	10.3	8.7	1.6	13.0	0.73	2.8		19	390,000	5.5	4.3	4.9	49,454	6,594
Aug. 10	Sept. 5	2	42.0	30.5	11.5	6.3	4.7	1.6	11.0	0.90	6.0		15	350,000	5.1	4.7	4.9	49,454	6,594
Oct. 5	Oct. 17	1	13.0	4.0	9.0	6.0	5.0	1.0	19.0	0.50	2.0		20	1,000,000	5.8	4.6	5.1	49,454	6,594

TABLE No. 40.

Settled Effluent from Seven and One-half Foot Sprinkling Filter 1″ to 3″ Stone

June 8	July 11	3	22.0	17.7	4.3	9.7	8.3	1.4	14.0	0.63	1.7		20	29,000	5.5	4.3	4.9	------	------
Aug. 10	Sept. 5	2	32.5	25.0	7.5	6.2	5.3	0.9	11.0	1.70	6.5		15	10,000	5.1	4.7	4.9	------	------
Oct. 5	Oct. 17	1	15.0	5.0	10.0	6.0	5.0	1.0	19.0	0.40	2.0		22	210,000	5.8	4.6	5.1	------	------

TABLE No. 41.

Effluent from Nine-foot Sprinkling Filter 1″ to 3″ Stone

July 13	Aug. 8	2	30.0	22.5	7.5	4.5	3.0	1.5	8.5	1.30	7.5		10	340,000	5.6	4.4	5.1	49,454	5,495
Sept. 7	Oct. 3	2	37.5	29.5	8.0	7.5	6.0	1.5	11.0	0.45	15.0		16	500,000	5.6	4.8	5.2	49,454	5,495

TABLE No. 42.

Settled Effluent from Nine-foot Sprinkling Filter 1″ to 3″ Stone

July 13	Aug. 8	2	18.5	13.0	5.5	4.0	3.5	0.5	8.5	1.40	8.5		13	45,000	5.6	4.4	5.1	------	------
Sept. 7	Oct. 3	2	22.5	20.0	2.5	6.5	5.5	1.0	11.0	0.60	15.0		17	41,000	5.6	4.8	5.2	------	------

TABLE No. 1.

STUDIES OF AVAILABLE OXYGEN IN METHYLENE BLUE INCUBATION TESTS.

Tests of Effluents From Six-foot Sprinkling Filters

Date		½" to 1½" Stone						1" to 2" Stone						2" to 4" Stone						4" to 6" Stone					
		Dissolved Oxygen Initial	Nitrites Initial	Nitrites Final	Nitrates Initial	Nitrates Final	Incubation 37° C. No Hours Blue Retained	Dissolved Oxygen Initial	Nitrites Initial	Nitrites Final	Nitrates Initial	Nitrates Final	Incubation 37° C. No Hours Blue Retained	Dissolved Oxygen Initial	Nitrites Initial	Nitrites Final	Nitrates Initial	Nitrates Final	Incubation 37° C. No Hours Blue Retained	Dissolved Oxygen Initial	Nitrites Initial	Nitrites Final	Nitrates Initial	Nitrates Final	Incubation 37° C. No Hours Blue Retained
1907.																									
October	9													2.6	0.00	0.00	0.0	0.0	15	3.1	0.00	0.00	0.0	0.0	15
"	10													2.6	0.00	0.00	0.0	0.0	18	0.0	0.00	0.00	0.0	0.0	0.5
"	11													3.4	0.00	0.00	0.0	0.0	30	4.5	0.00	0.00	0.0	0.0	15
"	23	4.1	0.00	0.00	0.0	0.0	23	3.6	0.00	0.00	0.0	0.0	16												
"	24	4.1	0.00	0.00	0.0	0.0	17	3.8	0.00	0.00	0.0	0.0	17												
"	25	3.3	0.20	0.00	0.0	0.0	25	3.9	0.10	0.00	0.0	0.0	14												
"	28	6.3		0.00		0.0	20	4.2		0.00		0.0	16												
"	29	4.7	0.20	0.00	0.0	0.0	18	4.0	0.40	0.00	0.0	0.0	16												
"	30													6.6	0.00	0.00	0.0	0.0	14	4.4	0.00	0.00	0.0	0.0	14
"	31													4.8	0.00	0.00	0.0	0.0	8	5.1	0.00	0.00	0.0	0.0	8
November	1													3.5	0.00	0.00	0.0	0.0	14	2.6	0.00	0.00	0.0	0.0	11
"	7	6.8	0.20	0.00	0.0	0.0	25	6.9	0.40	0.00	0.0	0.0	22												
"	■	6.3	0.00	0.00	0.0	0.0	40	5.3	0.20	0.00	0.0	0.0	39												
"	9	7.5	0.40	0.04	0.0	0.4	50*	7.8	0.20	0.02	0.0	0.0	50*												
"	11	5.3	0.00	0.00	0.0	0.0	12	5.3	0.00	0.00	0.0	0.0	11												
"	12	4.1	0.00	0.00	1.0	0.0	14	5.1	0.00	0.00	0.8	0.0	21												
"	13	6.3	0.60	0.00	1.0	0.0	72*	5.5	0.40	0.00	1.0	0.0	20												
"	21	5.4	0.80	0.00	0.0	0.0	90*	5.4	0.00	0.00	0.0	0.0	20												
"	22	6.1	0.60	0.00	0.0	0.0	72	5.5	0.40	0.00	0.0	0.0	36												
"	■	4.8	0.60	0.24	10.6	1.0	48*	5.1	0.40	0.64	8.0	1.0	48*												
"	25	3.8	0.10	0.03	0.0	0.0	21	4.5	0.40	0.10	0.0	0.0	21												
"	26	6.1	2.00	0.00	1.0	0.0	30	6.0	0.60	0.00	0.0	0.0	24												
"	27	6.8	0.60	0.06	1.0	3.0	51*	4.1	0.80	0.00	4.0	0.0	26												
"	29													3.8	0.40	0.00	2.0	0.0	20	3.0	0.40	0.00	1.0	0.0	9
"	30													7.0	0.20	0.02	3.0	0.0	52	6.9	0.10	0.02	1.0	0.0	30
December	3	5.2	0.00	0.00	0.0	0.0	28	4.4	0.10	0.01	0.0	0.0	18												
"	4	6.9	0.10	0.25	5.0	2.0	51*	6.3	1.00	0.45	3.0	1.0	51*												
"	5	6.9	2.40	1.60	6.0	4.0	46*	6.4	0.10	0.00	5.0	0.0	46*												
"	6	4.4	3.20	0.05	1.0	2.0	70*	5.9	2.40	0.15	0.0	0.0	70*												
"	7	7.2	0.20	0.55	2.0	8.0	48*	6.1	0.10	0.03	1.0	1.0	48*												
"	9	6.9	0.50	0.03	10.0	1.0	96	4.3	0.35	0.03	4.0	0.0	48												
"	10	5.7	0.20	0.00	6.0	2.0	96*	5.8	0.70	0.00	4.0	0.0	96*												
"	11														0.30	0.00	0.0	0.0	18		0.00	0.00	0.0	0.0	10
"	12													5.0	0.20	0.03	0.0	0.0	17	3.9	0.00	0.00	0.0	0.0	12
"	13													1.7	1.20	0.03	1.0	0.0	18	3.0	0.00	0.00	0.0	0.0	10
"	16													6.5	1.40		2.0		24	5.8	0.60	0.03	0.0	0.0	9
"	17													6.6	0.10	0.03	2.0	0.0	24	5.9	0.10	0.03	2.0	0.0	17
"	18	7.8	1.60	0.00	3.0	0.0	96*	3.9	0.80	0.03	3.0	0.0	20												
"	19	7.5	2.40	0.03	5.0	1.0	96*	7.1	3.00	0.00	8.0	0.0	96*												
"	20		0.10	0.00	5.0	2.0	96*	7.1	0.10	0.00	12.0	0.0	96*												
"	21	8.1	0.30	0.00	5.0	3.0	96*	7.3	0.30	0.00	8.0	4.0	96*												
"	23	4.4	0.00	0.32	8.0	15.0	96*	5.3	0.60	0.45	12.0	15.0	96*												
"	24	4.8	0.40	0.00	3.0	5.0	96*	7.8	0.40	0.00	8.0	4.0	96*												
"	26	4.7	0.80	0.00	5.0	0.0	96*	5.4	0.60	0.00	5.0	0.0	96*												
"	27	4.2	1.20	0.00	0.0	0.0	96	5.6	1.20	0.00	0.0	0.0	43												
"	28	5.0	0.00	0.05	3.0	1.0	96*	5.5	0.20	0.10	5.0	0.0	96*												
"	30	3.1	0.00	0.03	6.0	0.0	96*	2.6	0.10	0.03	5.0	0.0	96*	3.0	0.00	0.00	0.0	0.0	24	2.0	0.00	0.00	0.0	0.2	8
1908																									
January	2	3.6	0.60	0.00	20.0	0.0	19	2.3	0.80	0.00	20.0	0.0	16	6.8	0.40	0.00	5.0	0.0	24	4.5	0.80	0.03	1.0	0.0	9
"	3	5.2	0.40	0.10	5.0	0.0	49	3.7	1.00	0.10	7.0	0.0	25	6.2	0.40	0.10	1.0	0.0	31	4.4	0.40	0.00	0.0	0.0	9
"	6	4.2	0.00	0.05	0.0	0.0	23	4.9	3.20	0.00	7.0	0.0	22	7.0	0.20	0.05	0.0	0.0	29	6.1	0.10	0.05	0.0	0.0	14
"	7		0.40	0.15	7.0	0.0	70		0.30	0.10	8.0	0.0	41		0.20	0.00	3.0	0.0	26		0.20	0.05	1.0	1.0	12
"	8	3.2	0.40	0.05	5.0	0.0	37	3.9	0.60	0.05	5.0	0.0	29	3.9	0.80	0.05	1.0	0.0	74	4.2	0.40	0.10	0.0	0.0	13
"	9	6.0	1.60	0.00	5.0	0.0	34	5.4	0.60	0.00	7.0	0.0	22	6.9	1.00	0.10	7.0	2.0	96*	5.2	0.40	0.00	0.0	0.0	23
"	10		0.40	0.15	5.0	0.0	96*		2.00	0.10	3.0	0.0	36	7.4	0.60	0.03	1.0	0.0	96*	5.2	0.00	0.03	0.0	0.0	13
"	11		0.20	0.50	5.0	1.0	96*		0.60	0.03	2.0	0.0	90*		0.40	0.03	3.0	0.0	96*		0.30	0.03	1.0	0.0	27
"	■		2.00	0.03	2.0	0.0	17		1.20	0.00	3.0	0.0	17		0.60	0.00	1.0	0.0	19		0.10	0.03	0.0	0.0	10
"	14	4.8	0.40	0.00	5.0	0.0	21	6.0	1.20	0.00	5.0	0.0	21	5.2	0.40	0.00	3.0	0.0	24	3.6	0.60	0.03	1.0	0.0	10
"	15	5.3	2.20	0.05	5.0	0.0	26	5.7	0.80	0.05	5.0	0.0	34	5.2	0.60	0.00	1.0	0.0	26	4.3	0.10	0.00	0.0	0.0	10
"	16	4.7	0.20	0.00	5.0	0.0	61	5.9	0.60	0.00	5.0	0.0	62	4.8	1.00	0.00	1.0	0.0	56	4.1	0.10	0.05	0.0	0.0	8
"	17	5.3	0.40	0.00	8.0	0.0	54	5.6	0.40	0.00	6.0	0.0	47	6.5	0.20	0.00	3.0	0.0	47	3.8	0.20	0.03	0.0	0.0	12
"	18	6.7	0.40	0.00	10.0	1.0	96*	7.2	0.40	0.80	8.0	1.0	96*	5.7	0.60	0.15	5.0	0.0	90*	5.2	0.40	0.75	1.0	1.0	27
"	20	5.5	3.20	0.05	6.0	0.0	34	7.4	1.80	0.10	3.0	0.0	23	4.7	0.60	0.15	0.0	0.0	20	2.9	0.60	0.10	0.0	0.0	9
"	21	4.9	3.20	0.03	7.0	0.0	58	4.8	0.40	0.05	2.0	0.0	24	2.7	1.20	0.03	0.0	0.0	31	3.2	0.20	0.10	0.0	0.0	8
"	24	5.8	0.80	0.03	2.0	0.0	96*	6.0	1.80	0.05	1.0	0.0	39	5.7	0.10	0.10	0.0	0.0	29	6.2	0.40	0.10	0.0	0.0	7
"	25	3.6	1.40	0.00	1.0	0.0	46	7.4	0.10	0.00	0.0	0.0	29	7.4	0.20	0.05	0.0	0.0	29	3.0	0.80	0.10	5.0	0.0	17
"	27	5.1	3.60	0.03	10.0	0.0	61	5.3	1.80	0.05	7.0	0.0	32	5.0	0.20	0.03	0.0	0.0	22	5.9	0.20	0.03	0.0	0.0	8
"	28	6.7	0.20	0.00	1.0	0.0	24	8.8	0.30	0.00	0.0	0.0	24												
"	■	7.6	0.20	0.75	10.0	1.0	90*	5.6	0.60	0.03	10.0	0.0	60	5.9	0.20	0.03	2.0	0.0	96*	5.8	0.10	0.00	0.0	0.0	12
"	30	7.7	0.10	0.05	12.0	7.0	96*	8.4	0.10	0.00	8.0	0.0	96*	6.3	0.60	0.10	1.0	0.0	32	4.0	0.00	0.05	0.0	0.0	23
"	31	5.4	1.00	0.00	10.0	0.0	96*	5.6	0.60	0.03	0.0	0.0	38	6.0	0.80	0.03	0.0	0.0	44	5.6	0.10	0.05	0.0	0.0	14
February	1	6.4	0.20	0.00	5.0	0.0	96*	6.4	0.40	0.00	1.0	0.0	96*	6.1	0.00	0.00	0.0	0.0	92	6.1	0.00	0.00	0.0	0.0	45
"	3	6.7	0.20	0.05	8.0	0.0	90*	7.0	0.10	0.00	8.0	0.0	44	6.3	0.10	0.00	5.0	0.0	96*	7.1	0.10	0.00	1.0	0.0	33
"	4													6.4	0.20	0.00	0.0	0.0	26	6.8	0.20	0.00	0.0	0.0	10
"	5	8.3	0.00	0.00	10.0	0.0	96*	6.8	0.20	0.00	7.0	0.0	57	4.7	0.10	0.00	0.0	0.0	11	4.9	0.00	0.03	0.0	0.0	11
"	6	7.4	1.40		9.0		72	7.8	0.10	0.00	6.0	0.0	37	5.7	0.10	0.00	0.0	0.0	24	5.6	0.20	0.10	0.0	0.0	12
"	7	7.6	1.60	0.00	7.0	0.0	96*	8.1	0.10	0.00	7.0	0.0	41	6.2	0.20	0.00	1.0	0.0	18	6.0	0.00	0.00	0.0	0.0	11
"	8	8.1	0.20	0.00	7.0	1.0	96*	8.1	0.20	0.00	7.0	1.0	96*	7.5	0.60	0.00	5.0	0.0	88	6.4	0.00		1.0		39
"	10													4.8	0.00	0.03	0.0	0.0	11	4.5	0.10	0.03	0.0	0.0	9
"	11	5.7	0.80	0.00	5.0	0.0	96*	6.3	1.00	0.05	1.0	0.0	50	3.4	0.00	0.00	0.0	0.0	16	3.2	0.00	0.00	0.0	0.0	8
"	12	6.0	0.70	0.00	5.0	0.0	39	5.3	1.40	0.05	0.0	0.0	38	4.1	0.10	0.05	0.0	0.0	22	4.4	0.10	0.03	0.0	0.0	8
"	13	5.1	0.00	0.20	0.0	2.0	96*	6.1	0.20	0.05	3.0	0.0	96*	2.9	0.20	0.00	1.0	0.0	36	2.4	0.00	0.00	0.0	0.0	38
"	14	5.2	0.20	0.03	10.0	0.0	96*	5.1	0.20	0.00	5.0	0.0	90*	4.7	0.00	0.03	0.0	0.0	31	4.7	0.00		0.0		
"	17	5.2	2.00	0.00	8.0	0.0	80	3.6	1.80	0.00	1.0	0.0	30	4.0	0.20	0.00	0.0	0.0	21	4.4	0.10	0.00	0.0	0.0	12
"	18													5.2	0.00	0.00	0.0	0.0	30	5.4	0.00	0.00	0.0	0.0	15
"	19	14.1	0.40	0.00	7.0	0.0	96*	6.8	0.60	0.03	3.0	0.0	46	6.2	0.80	0.00	1.0	0.0	36	5.7	0.30	0.00	0.0	0.0	17
"	20	7.2	0.70	0.10	10.0	0.0	96*	6.7	0.80	0.03	7.0	0.0	48	5.1	1.20	0.03	2.0	0.0	56	5.5	0.00	0.00	0.0	0.0	16
"	21	7.1	0.40	0.15	7.0	0.0	96*	7.2	0.40	0.20	7.0	10.0	96*	5.7	0.20	0.05	0.0	0.0	56	5.1	0.20	0.03	0.0	0.0	23
"	24	4.3	2.00	0.05	7.0	0.0	35	3.0	0.30	0.00	7.0	0.0	25	4.4	1.20	0.00	1.0	0.0	34	3.3	0.00		0.0	0.0	33
"	25	4.9	1.60	0.00	5.0	0.0	81	5.0	0.80	0.20	5.0	1.0	36	4.0	0.10	0.00	0.0	0.0	33	3.9	0.10	0.00	0.0	0.0	9
"	26	8.8	0.00	0.01	8.0	8.0	90*	8.1	0.00	0.10	8.0	0.0	96*	7.4	0.80	0.00	5.0	0.0	90*	4.7	0.80	0.01	1.0	0.0	40
"	27	7.5	1.40	0.00	8.0	3.0	96*	7.9	1.40	0.05	7.0	0.0	96*	5.4	2.20	0.35	1.0	0.0	35	5.2	0.40	0.20	0.0	0.0	16
"	28	8.0	0.20	0.50	10.0	7.0	96*	9.0	0.50	0.08	5.0	0.0	96*	6.8	1.00	0.00	3.0	0.0	90*	7.3	0.04	0.01	1.0	0.0	16
"	29	8.0	0.04	0.01	7.0	2.0	96*	8.8	0.10	0.01	5.0	0.0	96*	6.2	0.10	0.00	3.0	0.0	46	6.1	0.06	0.00	1.0	0.0	20
March	2	6.3	0.00	0.00	10.0	0.0	96*	6.9	0.00	0.00	7.0	0.0	44	4.2	0.00	0.00	0.0	0.0	14	4.0	0.01	0.00	1.0	0.0	10
"	3	6.4	0.30	0.00	10.0	0.0	90	6.6	0.20	0.00	7.0	0.0	35	4.0	0.00	0.00	0.0	0.0	15	4.5	0.00	0.00	0.0	0.0	10
"	4	5.0	0.90		0.0	0.0	35	6.7	0.10	0.00	8.0	0.0	80	4.4	0.70		1.0	0.0	30	4.4	0.00	0.00	0.0	0.0	11
"	5	7.4	1.60	0.00	10.0	5.0	96*	6.9	0.80	0.00	10.0	0.0	96*	5.0	0.40	0.00	0.0	0.0	31	4.8	0.20	0.05	0.0	0.0	19
"	6	8.8	1.00	0.10	3.0	3.0		3.7	0.01	0.00	1.0	0.0		6.1	0.00	0.00	0.0	0.0	40	6.5	0.00	0.00	0.0	0.0	36
"	7	7.2	0.25	0.00	4.0	1.0	96*	8.2	0.10	0.00	3.0	1.0	96*	5.4	0.00	0.00	0.0	0.0	76	5.7	0.00	0.00	0.0	0.0	11
"	9	5.6			1.0	0.0	37	6.0	1.20	0.00			37	4.4						4.2					
"	10	8.4	0.10	0.03	5.0	1.0	96*	8.2	0.20	0.00	5.0	0.0	96*	5.8	0.20	0.00	0.0	0.0	48						
"	11	6.3	0.05	0.10	10.0	0.0	96*	6.2	0.30	0.05	8.0	0.0	96*	3.9	0.25	0.00	3.0	0.0	29	4.3	0.20	0.00	0.0	0.0	12
"	12	4.7	0.30	0.01	7.0	0.0	90*	5.9	0.25	0.00	8.0	0.0	96*	4.1	0.00	0.00	3.0	0.0	39						
"	13	7.0	0.20	0.10	8.0	5.0	93*	7.3	0.20	0.01	7.0	1.0	96*	5.4	0.20	0.01	3.0	0.0	62						
"	14	6.8	0.05	0.05	5.0	1.0	90*	7.1	0.01	0.00	3.0	1.0	96*	5.2	0.01	0.01	0.0	0.0	42						
"	16	4.8	0.12	0.00	3.0	0.0	20	4.6	0.20	0.00	7.0	0.0	16	3.3	0.20	0.00	0.0	0.0	12						
"	17	5.2	1.00	0.02	5.0	0.0	37	7.1	0.80	0.00	10.0	1.0	96*	0.0	0.00	0.00	0.0	0.0	15						
"	18	5.0	0.20	0.00	5.0	1.0	96*	6.4	0.15	3.00	7.0	1.0	72	4.4	0.25	0.00	3.0	0.0	30	3.5	0.20	0.00	0.0	0.0	9
"	19	6.1	0.10	1.00	8.0	3.0	90*	6.7	0.20	0.00	7.0	2.0	90*	2.0	0.20	0.25	0.0	2.0	28						
"	20	10.0	0.30	0.00	12.0	4.0	90*	7.3	0.60	0.00	7.0	0.5		5.3	0.00	0.03	1.0	1.0	36						
"	21	5.9	0.00	0.05	7.0	1.0	90*	5.5	0.00	0.00	6.0	0.0	90*	4.4	0.00	0.00	1.0	1.0	18						
■			0.30	0.00	1.0	0.0			0.10	0.00	10.0	1.0	22		0.10		3.0	0.5							
"	24	5.6	0.10	0.03	12.0	0.5	90*	4.8	0.20	0.00	7.0	1.0	38	3.8	0.20	0.00	3.0	1.0	38						
"	25	3.8	0.15		5.0			4.5	0.20		3.0			3.0	0.15	0.00	0.5	1.0	15	2.3	0.10	0.00	0.5	0.5	10
"	26	5.9	0.20	0.10	7.0	2.0	90*	5.9	0.10	0.25	7.0	1.0	90*	4.4	0.20	0.00	2.0	0.5	35	3.9	0.20		1.0		
"	27	5.5	0.20	0.00	7.0	1.0	90*	5.4	0.20	0.00	6.0	0.5	90*	3.3	0.25	0.03	0.0	0.0	24	2.5	0.00	0.00	0.5	0.5	13
"	30		0.00	0.00	10.0	0.5	37		0.20	0.00	3.0	0.5	35		0.25	0.00	0.5	0.5	17		0.10	0.00	0.5	0.5	13
"	31		0.05	0.00	8.0	2.0	90*		0.10	0.00	3.0	0.5	90*		0.10	0.05	1.0	0.5	39		0.05	0.00	0.5	1.0	13
April	1		0.15	0.02	0.0	1.0	9		0.15	0.00	2.0	1.0	72		0.15	0.04	1.0	1.0	23		0.10	0.00	0.5		
"	2		0.15	0.00	10.0	1.0	90*		0.20	0.00	4.0	0.5	90*		0.15	0.00	0.5	1.0			0.10	0.00	1.0	1.0	9
"	3		0.20	0.00	7.0	0.0	23		0.20	0.00	2.0	0.5	80*		0.20	0.00	0.5	2.0	18		0.10	0.00	1.0	1.0	17
■			0.00	0.00	5.0	2.0	90*		0.00	0.00	4.0	2.0	90*		0.20	0.35	1.0	0.0	17		0.20	0.00	1.0	1.0	11
"	6		0.10	0.00	10.0	0.0	32		0.07	0.05	5.0	1.0	32		0.10	0.00	3.0	1.0			0.10	0.00	0.5	1.0	7
"	7		1.00	0.00	1.0	1.0	57		0.80	0.00	2.0	0.5	32		0.00	0.05	1.0	1.0	24		0.10	0.00	1.0	1.0	7
"	8		0.30	0.00	6.0	0.5	90*		0.30	0.00	3.0	0.0	53		0.00	0.00	1.0	0.5	23		0.00	0.00	0.5	0.5	7
■			0.80	0.00	6.0	0.0	40		0.80	0.00	4.0	0.0	50		0.10	0.10	0.5	0.0	15		0.05	0.00	0.0	0.5	11
"	10		0.10	0.00	10.0	0.0	90*		0.40	0.00	8.0	0.5	65		0.10	0.00	3.0	1.0	24		0.20	0.00	1.0	0.0	15
"	11		0.80	0.00	5.0	1.0	13		1.80	0.00	4.0	2.0	12		0.00	0.00	1.0	0.0	27		0.00	0.00	0.5	0.5	11
"	13		1.50	0.00	3.0	1.0	42		0.60	0.00	2.0	1.0	35												
"	14		0.10	0.00	5.0	0.5	37		0.10	0.00	7.0	0.5	37												
"	15		0.10	0.00	10.0	0.0	60		0.10	0.00	10.0	0.0	63												
"	16		0.10	0.00	10.0	0.5	90*		0.20	0.05	8.0	0.0	90*												
"	18		0.10	0.00	1.0	1.0	61		0.20	0.05	1.0	1.0	48												
"	20		0.25	0.00	1.0	0.5	84		0.20	0.00	4.0	1.0	78												
"	21		0.00	0.00	1.0	0.5	84		0.00	0.00	2.0	1.0	90*												
"	27		1.00	0.00	2.0	1.0	44		0.40	0.00	1.0	1.0	51												
"	28		0.10	0.00	3.0	0.5	47		0.20	0.00	4.0	0.5	51		

TABLE No 2.

STUDIES OF AVAILABLE OXYGEN IN METHYLENE BLUE INCUBATION TESTS.

Date	½" to 1½" Stone						1" to 2" Stone						2" to 4" Stone						4" to 6" Stone					
	Dissolved Oxygen Initial	Nitrites		Nitrates		Incubation 37° C. No. Hours Blue Retained	Dissolved Oxygen Initial	Nitrites		Nitrates		Incubation 37° C. No. Hours Blue Retained	Dissolved Oxygen Initial	Nitrites		Nitrates		Incubation 37° C. No. Hours Blue Retained	Dissolved Oxygen Initial	Nitrites		Nitrates		Incubation 37° C. No. Hours Blue Retained
		Initial	Final	Initial	Final			Initial	Final	Initial	Final			Initial	Final	Initial	Final			Initial	Final	Initial	Final	
Tests of Effluents From Nine-foot Sprinkling Filters																								
1907.																								
October 9													4.3	1.40	0.00	1.0	0.0	22	3.8	0.00	0.00	0.0	0.0	15
" 10													3.9	0.00	0.00	0.0	0.0	26	3.6	0.00	0.00	0.0	0.0	16
" 11													3.3	1.60	0.00	2.0	0.0	40	4.0	0.00	0.00	0.0	0.0	16
" 23	5.3	0.00	0.00	0.0	0.0	25	4.6	0.00	0.00	0.0	0.0	18												
" 24	5.8	0.00	0.00	0.0	0.0	20	5.4	0.00	0.00	0.0	0.0	23												
" 25	7.4	0.80	0.00	0.0	0.0	39	5.3	1.80	0.00	0.0	0.0	19												
" 28	7.3		0.00		0.0	23	6.3		0.00		0.0	23												
" 29	6.8	0.70	0.00	0.0	0.0	46	5.4	0.40	0.00	0.0	0.0	21												
" 30													5.8	0.00	0.00	0.0	0.0	14	5.2	0.10	0.00	0.0	0.0	14
" 31													5.5	0.10	0.00	0.0	0.0	15	6.8	0.00	0.00	0.0	0.0	8
November 1													3.3	0.00	0.00	0.0	0.0	25	2.4	0.00	0.00	0.0	0.0	14
" 7	7.7	0.50	0.00	0.0	0.0	22	6.8	0.40	0.00	0.0	0.0	38												
" 8	7.8	0.00	0.00	0.0	0.0	72*	6.6	0.20	0.02	0.0	0.0	72*												
" 9	9.5	0.20	0.26	0.0	4.0	50*	7.2	1.00	0.22	4.0	4.0	50*												
" 11	6.8	1.10	0.00	3.0	0.0	20	6.3	0.00	0.00	2.0	0.0	22												
" 12	6.1	2.00	0.01	4.0	0.0	37	6.5	1.60	0.00	5.0	0.0	40												
" 13	9.7	0.30	0.10	2.0	1.0	72*	7.2	0.20	0.70	5.0	3.0	72*												
" 21	7.1	0.20	0.01	0.0	4.0	90*	6.3	1.70	0.30	0.0	0.0	90*												
" 22	7.0	0.80	0.00	1.0	5.0	65*	6.5	0.60	0.01	10.0	6.0	65*												
" 23	7.1	0.60	0.50	10.0	8.0	48*	5.9	0.60	0.68	10.0	8.0	48*												
" 25	6.9	0.40	0.03	0.0	0.0	25	7.0	4.00	1.40	8.0	1.0	48*												
" 26	6.6	1.40	0.40	10.0	0.0	30	6.4	1.40	1.40	10.0	5.0	41*												
" 27	6.3	0.40	0.40	8.0	2.0	51*	7.4	0.40	0.50	10.0	10.0	51*												
" 29													5.7	0.50	0.00	5.0	0.0	28	4.8	0.80	0.08	1.0	0.0	14
" 30													8.3	0.20	0.01	4.0	0.0	75*	8.3	0.30	0.00	1.0	0.0	44
December 3	6.4	2.40	0.03	10.0	0.0	49	5.2	0.20	0.01	0.0	0.0	18												
" 4	7.3	1.00	0.90	10.0	10.0	51*	6.7	1.10	0.50	10.0	8.0	51*												
" 5	6.8	2.40	0.90	20.0	20.0	46*	7.5	0.30	0.22	15.0	15.0	46*												
" 6	8.2	1.20	0.15	10.0	15.0	70*	7.2	1.00	0.08	10.0	5.0	70*												
" 7	7.6	3.00	0.55	10.0	10.0	48*	7.5	0.80	0.30	5.0	10.0	48*												
" 9	7.7	0.55	0.20	20.0	10.0	96*	7.2	0.50	0.03	15.0	1.0	96*												
" 10	7.3	0.90	0.20	8.0	8.0	96*	6.4	0.60	0.03	12.0	6.0	96*												
" 11														2.40	0.00	3.0	0.0	18		0.00	0.00	0.0	0.0	12
" 12													6.6	1.80	0.03	3.0	0.0	24	4.9	0.10	0.00	0.0	0.0	18
" 13													4.9	1.20	0.00	5.0	0.0	96*	3.4	0.00	0.00	0.0	0.0	18
" 16													7.0	0.80	0.03	6.0	0.0	96*	4.7	1.10	0.03	1.0	0.0	23
" 17													7.8	0.20	0.03	5.0	0.5	96*	6.2	0.10	0.03	2.0	0.0	15
" 18	8.5	3.20	0.25	10.0	5.0	96*	6.9	2.40	0.03	6.0	0.0	15												
" 19	8.4	1.40	0.85	10.0	5.0	96*	7.6	2.00	0.45	10.0	0.0	96*												
" 20	8.5	0.10	0.05	15.0	5.0	96*	8.3	0.10	0.05	12.0	10.0	96*												
" 21	8.2	0.30	0.05	10.0	8.0	96*	8.1	0.20	0.00	10.0	10.0	96*												
" 23	5.9	0.80	0.20	6.0	10.0	96*	7.0	0.80	0.45	15.0	25.0	96*												
" 24	9.1	0.30	0.00	5.0	8.0	96*	8.2	0.40	0.00	10.0	8.0	96*												
" 26	7.0	0.60	0.00	6.0	0.3	96*	6.6	1.00	0.00	10.0	10.0	96*												
" 27	5.8	1.00	0.03	5.0	1.0	96*	5.5	1.00	0.03	8.0	1.0	96*												
" 28	6.1	0.00	0.03	8.0	5.0	96*	6.6	0.30	0.20	8.0	1.0	96*												
" 30	5.2	0.10	0.05	10.0	7.0	96*	5.0	0.10	0.25	12.0	5.0	96*	4.4	0.00	0.00	0.0	0.0	31	2.2	0.00	0.00	0.0	0.0	18
1908.																								
January 2	3.6	0.40	0.00		0.0	25	3.9	0.80	0.00		0.0	19	7.0	0.80	0.00	10.0	0.0	26	5.5	0.80	0.00	2.0	0.0	18
" 3	7.6	0.80	1.20	10.0	5.0	96*	5.2	1.00	0.00	10.0	0.0	96*	7.4	0.60	0.00	7.0	0.0	90*	6.0	0.20	0.10	0.0	0.0	20
" 6	4.1	0.40	0.10	5.0	0.0	67	5.2	1.80	0.00	8.0	0.0	29	7.6	1.20	0.00	0.0	0.0	33	6.0	0.10	0.05	0.0	0.0	15
" 7		0.20	0.00	9.0	8.0	96*		0.40	0.10	9.0	3.0	96*		0.40	0.03	5.0	0.0	96		0.30	0.00	1.0	0.0	22
" 8	3.6	0.40	0.10	7.0	0.0	96*	4.8	0.60	0.10	10.0	0.0	96*	3.6	0.80	0.30	5.0	0.0	90*	4.9	0.40	0.15	0.0	0.0	23
" 9	6.8	0.60	0.20	7.0	0.0	46	1.6	2.20	0.05	8.0	0.0	37	5.8	1.40	0.05	6.0	0.0	96	5.4	0.60	0.00	1.0	0.0	10
" 10		0.40	0.80	7.0	5.0	96*		1.00	0.03	5.0	0.0	65	6.6	0.60	1.40	5.0	5.0	90*	7.1	0.20	0.05	0.0	0.0	28
" 11		0.60	1.10	8.0	5.0	96*		0.40	0.05	7.0	1.0	96*		0.40	0.05	6.0	5.0	96		0.40	0.03	1.0	0.0	90*
" 13		2.80	0.00	2.0	0.0	20		2.00	0.00	7.0	0.0	20		1.20	0.00	5.0	0.0	40		0.10	0.03	0.0	0.0	16
" 14	3.8	2.20	0.00	10.0	0.0	19	6.3	2.00	0.03	7.0	0.0	12	6.3	0.40	0.03	7.0	0.0	90	5.5	1.20	0.05	1.0	0.0	14
" 15	5.2	1.20	0.55	10.0	0.0	38	5.6	1.00	0.80	12.0	0.0	96*	5.2	0.60	0.03	6.0	0.0	90*	5.2	0.01	0.00	1.0	1.0	26
" 16	6.3	0.60	1.60	10.0	5.0	96*	6.6	0.80	1.10	10.0	8.0	96*	5.9	0.80	0.80	8.0	6.0	90*						
" 17	6.2	0.40	3.20	12.0	3.0	96*	6.5	0.40	0.10	12.0	3.0	90*	6.2	0.60	0.18	7.0	4.0	96*	5.8	0.40	0.00	2.0	0.0	32
" 18	6.5	0.40	0.30	10.0	8.0	96*	7.5	0.40	0.00	10.0	8.0	86*	6.6	0.60	0.80	10.0	3.0	96*	5.8	0.40	0.00	2.0	0.0	86
" 20	6.2	4.00	0.03	7.0	0.0	34	6.8	2.40	0.03	10.0	0.0	36	5.5	2.80	0.20	5.0	0.0	36	4.6	0.80	0.15	0.0	0.0	10
" 21	5.0	2.80	0.10	12.0	0.0	96*	5.2	3.00	0.10	9.0	12.0	96*	4.6	1.40	0.03	3.0	0.0	96*	3.7	0.40	0.05	0.0	1.0	13
" 24	5.8	1.80	0.80	8.0	1.0	96*	8.1	1.40	0.03	2.0	0.0	96*	3.9	0.20	0.03	0.0	0.0	83	6.6	0.40	0.05	0.0	0.0	13
" 25	4.7	4.40	0.00	10.0	0.0	96*	4.7	2.40	0.03	1.0	0.0	86*	4.7	0.20	0.00	0.0	0.0	96*	4.7	0.20	0.10	0.0	0.0	29
" 27	6.1	3.60	0.10	10.0	0.0	96*	5.1	0.80	0.40	10.0	0.0	96*												
" 28	7.7	0.40	2.40	6.0	1.0	96*	7.2	0.30	0.15	4.0	0.0	48	6.8	4.00	0.00	0.0	0.0	24*	6.2	0.20	0.05	0.0	0.0	8
" 29	7.8	0.20	0.40	15.0	15.0	96*	8.2	0.70	3.00	15.0	10.0	96*	7.1	0.20	0.03	7.0	0.0	96*	6.2	0.20	0.05	1.0	0.0	30
" 30	8.4	0.10	0.80	12.0	7.0	96*	8.9	0.20	0.20	12.0	5.0	96*	7.9	0.10	0.00	0.0	0.0	96*	9.7	0.10		1.0		30
" 31	6.3	0.60	1.40	25.0	12.0	96*	5.8	1.20	0.03	7.0	0.0	96*	7.3	0.80	0.03	1.0	0.0	96*	5.8	0.20	0.03	0.0	0.0	17
February 1	7.1	0.40	0.05	10.0	10.0	96*	7.1	0.10	0.05	7.0	1.0	96*	7.3	0.00	0.00	8.0	1.0	96*	7.1	0.00	0.00	0.0	0.0	47
" 3	7.0	0.10	1.40	15.0	8.0	96*	6.7	0.10	0.05	10.0	0.0	86*	6.8	0.10	0.20	12.0	5.0	96*	7.0	0.10	0.00	3.0	0.0	38
" 4													7.5	0.20	0.03	1.0	0.0	27	7.9	0.20	0.03	0.0	0.0	15
" 5	7.9	0.20	0.60	15.0	10.0	96*	7.7	0.80	0.03	10.0	5.0	96*	3.9	0.80	0.00	8.0	0.0	96*	6.2	0.00	0.00	0.0	0.0	24
" 6	8.4	1.60	0.15	15.0	8.0	96*	9.4	1.00	0.03	10.0	0.0	96*	8.1	0.60	0.03	5.0	0.0	96	6.5	0.20	0.03	0.0	0.0	18
" 7	8.8	0.80	0.05	12.0	10.0	96*	8.3	0.40	0.10	10.0	0.0	96*	6.9	0.60		7.0		60	6.3	0.00	0.00	1.0	0.0	15
" 8	8.8	0.20	0.80	1.0	10.0	96*	8.8	0.20	0.00	10.0	10.0	95*	7.5	0.40	0.03	7.0	1.0	96*	6.9	0.00		1.0		89
" 10													6.2	0.10	0.05	0.0	0.0	31	4.9	0.10	0.03	0.0	0.0	10
" 11	7.0	0.30	0.75	15.0	7.0	96*	7.6	0.80	0.00	5.0	0.0	80	5.1	0.90	0.05	0.0	0.0	39	4.5	0.00	0.00	0.0	0.0	13
" 12	6.8	0.40	0.03	10.0	1.0	96*	6.3	1.00	0.00	7.0	0.0	74	5.5	0.40	0.05	0.0	0.0	39	5.4	0.10	0.03	0.0	0.0	10
" 13	7.4	1.60	0.00	5.0	5.0	34	7.2	1.00	0.05	7.0	0.0	96*	6.1	0.40	0.00	5.0	0.0	90*	4.0	0.00	0.00	0.0	0.0	
" 14	6.4	0.80	0.03	10.0	1.0	96*	7.0	0.20	0.10	10.0	1.0	95*	5.3	0.40	0.03	7.0	0.0	90*	5.6	0.00	0.03	0.0	0.0	96
" 17	5.0	1.80	0.00	10.0	0.0	80	6.6	1.00	0.03	10.0	0.0	60	5.6	1.80	0.00	8.0	0.0	35	4.2	0.20	0.00	0.0	0.0	16
" 18													6.6	1.60	0.00	5.0	0.0	56	5.7	0.00	0.00	0.0	0.0	15
" 19	7.1	0.40	0.03	10.0	12.0	96*	6.5	0.40	0.03	7.0	0.0	96*	7.0	0.40	0.03	8.0	0.0	31	6.9	0.10	0.03	0.0	0.0	
" 20	7.9	0.60	3.00	12.0	12.0	96*	7.5	1.40	0.10	12.0	0.0	96*	7.2	1.00	0.03	8.0	0.0	90*	6.6	0.00	0.03	0.0	0.0	36
" 21	7.9	0.40	0.30	12.0	12.0	96*	7.3	0.40	0.15	10.0	10.0	96*	6.6	0.40	0.15	10.0	5.0	96*	5.5	0.60	0.03	0.0	0.0	32
" 24	6.6	1.00	0.50	7.0	0.0	40	5.9	0.30	0.50	10.0	0.0	40	5.8	0.10	0.01	10.0	1.0	96*	4.5	1.00	0.60	0.0	0.0	38
" 25	4.8	0.20	2.25	15.0	5.0	96*	6.5	0.60	0.20	10.0	0.0	96*	6.1	0.80	0.00	7.0	0.0	66	4.3	0.10	0.00	0.0	0.0	10
" 26	9.0	0.02	0.01	15.0	10.0	96*	9.0	0.04	0.05	15.0	8.0	96*	8.0	0.20	0.01	8.0	0.0	96*	7.9	0.60	0.00	3.0	0.0	41
" 27	8.6	1.20	0.00	15.0	12.0	96*	7.8	0.80	0.25	12.0	5.0	96*	6.7	2.00	0.10	8.0	0.0	96*	6.7	1.40	0.40	0.0	0.0	23
" 28	9.9	1.00	0.50	15.0	12.0	96*	9.0	0.50	0.10	10.0	7.0	96*	8.1	0.40	0.00	7.0	3.0	96*	7.3	0.34	0.00	1.0	0.0	96*
" 29	10.0	0.00	0.05	8.0	10.0	96*	9.6	0.10	0.50	8.0	7.0	96*	7.4	0.10	0.03	8.0	0.0	96*	6.7	0.00	0.00	2.0	0.0	9
March 2	8.3	0.30	2.00	12.0	12.0	96*	8.3	0.00	0.03	12.0	0.0	96*	5.6	0.40	0.00	7.0	0.0	38	4.8	0.00	0.00	1.0	0.0	13
" 3	8.8	0.14	0.00	12.0	12.0	96*	7.6	0.20	0.00	12.0	0.0	96*	5.6	0.20	0.00	5.0	0.0	31	4.0	0.00	0.00	0.0	0.0	11
" 4	8.5	0.40	1.00	15.0	12.0	90*	7.9	0.60	0.17	15.0	8.0	96*	6.3	0.60		7.0	0.0	96*	5.2	0.00	0.00	0.0	0.0	18
" 5	8.4	0.40	0.35	15.0	25.0	96*	8.3	1.00	0.10	12.0	10.0	96*	6.5	1.40	0.25	8.0	1.0	96*	5.0	0.00	0.00	0.0	0.0	19
" 6	9.4	0.50	0.10	8.0	12.0	96*	9.1	0.10	2.50	7.0	5.0	96*	7.4	0.80	0.15	3.0	0.0	96*	6.9	0.00	0.00	0.0	0.0	36
" 7	8.9	0.10	0.00	8.0	8.0	96*	10.3	0.10	0.03	7.0	5.0	96*	6.8	0.30	0.01	5.0	0.0	96*	6.4	0.00	0.00	0.0	0.0	36
" 9	8.0	0.30	0.30		3.0	96*	6.9	1.10	0.00		0.0	89	5.8						4.9					
" 10	9.3	0.15	0.03	10.0	7.0	96*	8.9	0.20	0.00	1.0	5.0	96*	7.2	0.20	0.03	7.0	3.0	96*						
" 11	7.8	0.25	0.40	18.0	12.0	96*	6.3	0.30	0.05	12.0	0.0	96*	5.5	0.25	0.00	10.0	0.0	96*	4.6	0.25	0.00	1.0	0.0	18
" 12	6.9	0.20	0.03	12.0	8.0	96*	6.7	0.20	0.00	10.0	1.0	96*	5.5	0.30	0.00	8.0	0.0	96*						
" 13	8.3	0.15	0.45	12.0	12.0	96*	7.6	0.30	0.05	12.0	5.0	96*	6.8	0.25	0.01	10.0	1.0	96*						
" 14	10.0	0.10	0.85	10.0	10.0	96*	7.8	0.01	0.00	3.0	0.0	96*	6.5	0.01	0.03	7.0	5.0	96*						
" 16	6.3	3.00	0.30	12.0	3.0	96*	5.5	1.60	0.00	15.0	0.5	96*	5.7	1.60	0.00	5.0	0.0	19						
" 17	8.1	0.00	0.10	15.0	15.0	96*	7.9	0.00	2.00	15.0	5.0	96*	5.8	1.20	0.00	7.0	1.0	96*						
" 18	8.5	0.10	0.00	12.0	15.0	96*	8.0	0.15	0.05	12.0	12.0	96*	5.7	0.27	0.00	7.0	3.0	96*	4.5	0.10	0.00	1.0	0.0	17
" 19	7.8	0.10	0.40	20.0	15.0	96*	7.6	0.15	0.05	15.0	15.0	96*	3.1	0.20	0.05	12.0	3.0	96*						
" 20	9.0	0.10	0.75	20.0	12.0	96*	8.7	0.30	0.50	16.0	12.0	96*	7.0	0.60	0.00	12.0	0.5	96*						
" 21	6.9	0.10	0.05	15.0	12.0	96*	5.8	0.00	0.00	12.0	6.0	96*	5.0	0.60	0.03	10.0	0.5	96*						
" 23		0.00	0.00	25.0	12.0	96*		0.20	0.08	20.0	3.0	96*		0.20	0.00	12.0	0.5							
" 24	7.1	0.10	0.00	20.0	15.0	96*	5.9	0.20	0.03	18.0	0.5	96*	5.8	0.20	0.00	12.0	1.0	44						
" 25	6.8	0.20	0.50	20.0	7.0	96*	6.5	0.25	0.05	10.0	1.0		4.7	0.25		4.0								
" 26	8.3	0.10	0.75	10.0	20.0	96*	7.5	0.20	2.00	10.0	12.0	96*	6.3	0.20	0.20	10.0	1.0		2.5	0.20	0.00	1.0	0.0	10
" 27	7.0	0.15	0.60	25.0	25.0	96*	6.5	0.25	0.00	10.0	10.0	96*	5.4	0.25	0.00	6.0	0.5	96*	4.4	0.10	0.00	2.0	0.5	24
" 30		0.10	4.00	10.0	12.0	96*		0.30	3.50	7.0	4.0	96*		0.20	0.50	1.0	0.5	96*	3.0	0.30	0.05	0.0	0.0	13
" 31		0.10	0.20	20.0	12.0	96*		0.20	0.03	15.0	4.0	96*		0.25	0.25	10.0	2.0	96*		0.20	0.00	1.0	0.5	14
April 1		0.15	0.10	20.0	15.0	96*		0.30	0.70	10.0	7.0	96*		0.30	0.01	6.0	2.0	96*		0.15	0.00	2.0	1.0	17
" 2		0.20	0.40	20.0	20.0	96*		0.30	0.30	12.0	12.0	96*		0.25	0.00	5.0	1.0	96*		0.05	0.00	1.0	0.5	28
" 3		0.20	0.30	25.0	30.0	96*		0.21	1.00	20.0	10.0	96*		0.20	0.05	1.0	1.0	96*		0.15	0.05	1.0	1.0	15
" 4		0.00	0.00	15.0	15.0	96*		0.00	0.00	12.0	12.0	96*		0.50	1.25	3.0	0.5	96*		0.15	0.00	1.0	1.0	13
" 6		0.10	0.00	15.0	12.0	96*		0.10	1.00	15.0	6.0	96*		0.10	0.03	6.0	0.5	96*		0.00	1.25	2.0	1.0	16
" 7		0.75	1.25	25.0		96*		0.90	0.10	20.0		96*		0.00	0.00	1.0	0.5	37		0.00	0.03	1.0	1.0	10
" 8		0.30	1.00	25.0	20.0	96*		0.30	2.75	15.0	12.0	96*		0.30	0.00	3.0	0.5	96*		0.20	0.03	1.0	1.0	9
" 9		0.40	0.40	20.0	25.0	96*		0.60	3.50	25.0	8.0	96*		1.00	0.00	4.0	0.5	60		0.05	0.00	0.5	0.5	11
" 10		0.20	0.50	12.0	18.0	96*		0.40	0.75	20.0	12.0	96*		0.50	0.00	7.0	1.0	96*		0.05	0.05	0.0	0.5	11
" 11		0.25	0.75	25.0	5.0	96*		1.60	0.00	20.0	10.0	96*		1.00		7.0				0.20	0.00	2.0	0.0	21
" 13		1.00	0.00	18.0	0.0	81		1.00	0.25	18.0	0.0	81								0.00	0.00	2.0	0.5	18
" 14		0.20	0.00	12.0	0.0	96*		0.15	0.15	12.0	0.5	96*												
" 15		0.10	1.00	15.0	6.0	96*		0.10	2.50	20.0	8.0	96*												
" 16		0.15	2.00	20.0	10.0	96*		0.20	1.00	20.0	12.0	96*												
" 18		0.20	0.35	7.0	2.0	96*		0.35	0.00	10.0	3.0	96*												
" 20		0.25	1.25	15.0	7.0	96*		0.30	0.05	12.0	1.0	96*												
" 21		0.20	0.05	15.0	7.0	96*		0.00	0.00	7.0	1.0	96*												
" 27		4.00	0.15	25.0	12.0	96*		0.60	1.50	7.0	0.5	96*												
" 28		0.20	0.80	15.0	7.0	96*		0.05	0.05	10.0	0.0	96*												
" 29		0.10	0.10	20.0	3.0	96*		0.30	0.10	20.0	3.0	96*												
" 30		0.10

TABLE No. 3.

STUDIES OF AVAILABLE OXYGEN IN MENTHYLENE BLUE INCUBATION TESTS

TESTS OF EFFLUENTS FROM TWELVE-FOOT SPRINKLING FILTERS

Date	½" to 1½" Stone: Dissolved Oxygen Initial	½" to 1½" Stone: Nitrites Initial	½" to 1½" Stone: Nitrites Final	½" to 1½" Stone: Nitrates Initial	½" to 1½" Stone: Nitrates Final	½" to 1½" Stone: Incubation 37° C. No Hours Blue Retained	1" to 2" Stone: Dissolved Oxygen Initial	1" to 2" Stone: Nitrites Initial	1" to 2" Stone: Nitrites Final	1" to 2" Stone: Nitrates Initial	1" to 2" Stone: Nitrates Final	1" to 2" Stone: Incubation 37° C. No Hours Blue Retained	2" to 4" Stone: Dissolved Oxygen Initial	2" to 4" Stone: Nitrites Initial	2" to 4" Stone: Nitrites Final	2" to 4" Stone: Nitrates Initial	2" to 4" Stone: Nitrates Final	2" to 4" Stone: Incubation 37° C. No Hours Blue Retained	4" to 6" Stone: Dissolved Oxygen Initial	4" to 6" Stone: Nitrites Initial	4" to 6" Stone: Nitrites Final	4" to 6" Stone: Nitrates Initial	4" to 6" Stone: Nitrates Final	4" to 6" Stone: Incubation 37° C. No Hours Blue Retained
1907.																									
October 9													4.6	3.20	0.00	3.0	0.0	40	4.4	0.00	0.00	0.0	0.0	15
" 10													3.6	2.40	0.00	2.0	0.0	120	3.4	0.00	0.00	0.0	0.0	15
" 11													3.5	1.80	1.10	2.5	1.5	288	4.0	0.40	0.00	0.5	0.0	19
" 23	6.4	0.00	0.60	0.0	0.0	25	6.6	0.00	0.00	0.0	0.0	27												
" 24	7.4	0.00	0.01	0.0	0.0	39	6.8	0.80	0.00	0.0	0.0	20												
" 25	7.0	0.70	0.00	0.0	0.0	19	6.2	1.80	0.00	0.0	0.0	19												
" 28	8.1		0.00		0.0	86*	7.0		0.00		0.0	39												
" 29	7.9	0.00	0.30	0.0	0.4	66*	6.1	0.80	0.00	0.0	0.0	46												
" 30													4.7	0.00	0.00	0.0	0.0	14	3.3	0.00	0.00	0.0	0.0	14
" 31													6.4	0.00	0.00	0.0	0.0	17	4.0	0.00	0.00	0.0	0.0	2
November 1													4.5	0.00	0.00	0.0	0.0	36	2.8	0.00	0.00	0.0	0.0	14
" 7	7.7	0.40	0.00	0.0	0.0	38	7.1	0.40	0.00	0.0	0.0	24												
" 8	7.0	0.20	0.02	0.0	0.0	72*	6.7	1.40	0.02	1.0	0.0	72*												
" 9	9.3	2.00	0.30	4.0	4.0	50	8.2	1.10	0.41	5.0	4.0	50*												
" 11	7.8	0.00	0.10	3.0	0.0	20	7.2	2.80	0.00	4.0	0.0	22												
" 12	7.3	1.00	0.00	5.0	0.0	90*	7.8	1.80	0.00	6.0	0.0	90*												
" 13	8.8	0.20	1.40	5.0	5.0	72	7.0	0.80	0.07	10.0	2.0	72*												
" 21	6.8	0.50	0.02	0.0	3.0	86*	4.4	2.80	0.04	0.0	0.0	19												
" 22	7.5	0.80	0.14	10.0	5.0	65*	7.6	0.80	0.04	15.0	15.0	65*												
" 23	7.3	1.60	0.32	15.0	0.0	48*	6.9	0.80	0.0	15.0	0.0	45												
" 25		4.00	0.04	0.0	0.0	48																		
" 26																								
" 27																								
" 29													6.4	0.70	0.00	7.0	0.0	69	3.3	0.40	0.00	2.0	0.0	19
" 30													9.0	0.20	0.14	8.0	3.0	75*	8.4	1.20	0.01	4.0	0.0	75*
December 3	6.6	2.00	0.80	12.0	1.0	49	6.0	0.10	0.03	5.0	0.0	22												
" 4	7.8	0.80	1.00	15.0	15.0	51*	7.1	1.00	0.90	15.0	10.0	51												
" 5	7.4	0.50	0.30	15.0	5.0	46*	8.4	0.30	0.15	20.0	10.0	46												
" 6	8.6	1.00	0.35	15.0	15.0	70*	7.5	0.50	0.30	15.0	15.0	70*												
" 7	8.0	1.00	0.55	15.0	1.0	48	7.2	0.50	0.2	1.0	0.0	48*												
" 9	7.7	0.70	0.55	20.0	15.0	96*	6.6	0.5	0.05	20.0	5.0	96*												
" 10	7.9	1.00	0.00	17.0	10.0	96	6.9	1.20	0.00	10.0	5.0	96												
" 11													2.4	0.00	8.0	0.0	24		0.00	0.00	0.0	0.0	15
" 12													6.9	1.60	0.00	6.0	0.0	17	6.1	0.10	0.00	0.0	0.0	26
" 13																			3.9	1.40	0.00	1.0	0.0	86
" 16													7.5	0.70	1.00	8.0	1.0	96	6.8	0.40		3.0		26
" 17													8.0	0.20	0.05	10.0	1.0	96*	7.3	0.20	0.55	4.0	3.0	29
" 18	8.7	0.60	0.60	10.0	15.0	96*	8.6	2.60	0.05	10.0	0.0	15												
" 19	8.7	1.40	0.75	15.0	15.0	96*	8.3	2.20	1.40	20.0	8.0	96*												
" 20	9.3	0.20	0.40	15.0	15.0	96*	8.5	0.20	0.50	12.0	10.0	96*												
" 21	9.0	0.10	0.28	15.0	10.0	96	8.6	0.30	0.30	20.0	10.0	96*												
" 23	7.2	1.00	0.20	10.0	12.0	96*	6.	1.20	0.20	0.0	0.0	96*												
" 24	8.6	0.20	0.80	10.0	12.0	96	7.0	0.20	0.20	10.0	12.0	96												
" 26	7.9	0.60	0.80	17.0	20.0	96	7.9	1.20	0.40	12.0	20.0	96*												
" 27	7.4	0.60	2.20	15.0	15.0	96*	6.0	1.20	0.08	8.0	1.0	96*												
" 28	7.1	0.50	3.2	12.0	10.0	96*	7.4	0.8	1.40	10.0	1.0	96*												
" 30	6.6	0.00	0.30	12.0	15.0	96*	6.6	0.10	0.03	10.0	8.0	96*	4.8	0.00	0.00	0.0	0.0	64	4.2	0.00	0.00	0.0	0.0	32
1908																								
January 2	6.4	0.40	8.00	40.0	0.0	96	5.1	0.20	0.03	30.0	0.0	24	7.1	0.80	0.03	15.0	0.0	26	5.2	0.80	0.00	5.0	0.0	22
" 3	8.1	0.20	0.20	1.0	15.0	96	7.7	1.60	0.90	1.0	1.0	96*	7.0	0.40	0.05	8.0	0.0	96*	6.7	1.00	0.75	1.0	0.0	31
" 6	4.9	0.10	0.03	15.0	5.0	96*	5.1	0.50	0.00	10.0	0.0	35	7.2	1.00	0.05	7.0	0.0	96*	8.4	0.10	0.00	0.0	0.0	25
" 7		0.40	0.45	12.0	12.0	96*		0.40	0.50	1.5	0.0	96		0.50	0.05	8.0	3.0	96*		1.50	0.00	2.0	0.0	22
" 8	4.2	0.40	1.20	15.0	10.0	96*	5.5	0.40	1.40	12.0	3.0	96*	5.0	0.40	0.10	9.0	6.0	96*	6.2	0.60	0.15	0.0	0.0	2.
" 9	7.8	0.60	1.10	12.0	5.0	96*	7.7	0.60	0.05	9.0	0.0	96	7.5	0.60	0.40	10.0	9.0	96						80
" 10		0.10	1.00	10.0	10.0	96*		0.40	1.60	8.0	7.0	96	8.2	0.80	1.15	9.0	7.0	96*	8.1	0.80	0.05	2.0	0.0	37
" 11		0.80	0.65	12.0	12.0	96		0.60	0.75	10.0	8.0	96*		0.40	1.35	8.0	9.0	96		0.80	0.05	2.0	2.0	96*
" 13		0.20	8.00	12.0	6.0	96*		1.80	0.05	12.0	0.0	47		1.20	0.05	8.0	0.0	96*		1.20	0.05	0.0	0.0	17
" 14	7.0	0.40	6.40	10.0	8.0	96*	6.3	2.60	1.60	10.0	2.0	96*	6.0	0.40	0.05	7.0	1.0	96	5.2	0.40	0.00	5.0	0.0	24
" 15	5.8	0.40	6.40	15.0	12.0	96	5.8	0.70	1.00	15.0	7.0	96*	6.0	0.40	0.05	8.0	1.0	96*	4.7	0.60	0.00	2.0	0.0	36
" 16	6.6	0.40	0.60	15.0	12.0	96*	6.6	0.60	0.20	12.0	10.0	96*	5.8	0.80	0.08	10.0	8.0	96	4.6	1.00	0.05	1.0	0.0	40
" 17	6.7	0.60	3.20	20.0	18.0	96*	6.6	0.40	1.30	20.0	12.0	96*	4.5	0.10	0.18	15.0	7.	96*	5.7	0.40	0.00	5.0	0.0	32
" 18	6.8	3.20	1.50	10.0	12.0	96	8.4	0.40	1.60	15.0	15.0	96	8.0	0.40	1.60	12.0	8.0	96	6.6	0.40	0.07	3.0	0.0	96*
" 20	6.9	1.80	0.05	20.0	20.0	96*	6.5	1.80	0.20	12.0	0.0	96*	7.6	1.00	0.05	8.0	0.0	82	5.9	0.60	0.10	0.0	0.0	20
" 21	7.9	0.80	3.20	20.0	20.0	96*	6.2	1.00	0.20	15.0	12.0	96	4.5	0.40	0.15	7.0	1.0	96*	4.5	0.20	0.03	2.0	0.0	26
" 24	7.6	0.40	1.60	12.0	15.0	96	8.1	1.00	0.80	12.0	7.0	96*	8.6	0.60	0.10	4.0	0.0	42	6.1	0.10	0.00	0.0	0.0	21
" 25	5.3	3.00	4.80	20.0	12.0	96*	9.7	2.00	3.00	4.0	0.0	96*	9.7	0.60	0.0	5.0	0.0	96*	8.3	0.20	0.10	1.0	0.0	29
" 27	6.2	0.30	0.08	12.0	6.0	96	5.6	0.20	0.03	10.0	0.0	84	4.9	0.40	0.05	0.0	0.0	14	7.0	0.20	0.05	0.0	0.0	10
" 28	6.0	0.30	3.20	10.0	2.0	96*	7.2	0.10	1.40	8.0	1.0	86*												
" 29	9.1	0.60	1.60	25.0	25.0	86	7.7	0.60	1.20	20.0	20.0	96*	8.0	0.20	0.03	10.0	5.0	96	7.1	0.20	0.05	2.0	0.0	36
" 30	10.1	0.20	0.20	15.0	15.0	96*	10.1	0.10	0.05	15.0	12.0	96*	8.6	0.10	0.10	8.0	2.0	96*	7.5	0.10	0.03	1.0	0.0	50
" 31	8.0	0.10	2.40	30.0	25.0	96*	7.4	1.00	3.20	12.0	7.0	96*	8.3	1.00	0.05	5.0	1.0	96*	6.3	0.40	0.00	0.0	0.0	34
February 1	7.7	0.10	0.06	20.0	15.0	96*	7.5	0.20	0.03	15.0	10.0	96*	7.9	0.10	0.30	5.0	10.0	96*	7.0	0.00	0.00	0.0	0.0	40
" 3	8.1	0.10	1.60	20.0	20.0	96	7.6	0.10	2.10	15.0	5.0	96*	6.1	0.10	0.80	15.0	8.0	96*	6.6	0.10	0.03	8.0	0.0	47
" 4													8.1	0.20	0.03	2.0	0.0	29	7.2	0.20	0.03	0.0	0.0	36
" 5	7.8	0.00	0.05	2.0	15.0	96	9.5	0.10	0.00	20.0	15.0	96*	7.1	1.20	0.00	7.0	0.0	53	6.4	0.10	0.05	0.0	0.0	85
" 6	10.1	0.40	1.20	15.0	15.0	96	10.0	1.20	0.25	15.0	10.0	96*	9.2	1.00	0.03	7.0	0.0	96*	7.8	0.20	0.03	0.0	0.0	24
" 7	11.9	0.00	0.15	15.0	15.0	96	10.0	0.20	0.45	12.0	12.0	96*	8.4	0.40	0.03	7.0	0.0	96*	6.6	0.60	0.00	2.0	0.0	20
" 8	11.4	0.00	0.05	10.0	12.0	96*	7.3	0.10	0.00	10.0	10.0	96*	7.3	0.10	0.40	5.0	5.0	96	7.0	0.40	0.00	10.0	1.0	73
" 10													5.9	0.10	0.20	1.0	0.0	52	4.8	0.10	0.03	0.0	0.0	11
" 11	8.4	0.10	2.40	20.0	15.0	96*	7.6	0.40	0.05	15.0	1.0	96*	5.9	1.80	0.05	4.0	0.0	56	4.6	0.80	0.25	0.0	0.0	19
" 12	8.0	0.00	0.03	15.0	12.0	96*	7.8	1.20	1.60	10.0	1.0	96*	6.3	1.80	0.05	5.0	0.0	90	4.9	0.10	0.05	0.0	0.0	23
" 13	8.0	0.20	0.05	10.0	10.0	96	7.7	0.80	0.60	10.0	2.0	86*	5.9	1.40	0.05	5.0	0.0	96*	5.4	0.00	0.00	0.0	0.0	34
" 14	8.1	0.10	0.80	15.0	15.0	96	7.3	1.00	1.20	12.0	5.0	96*	6.0	0.80	0.15	7.0	1.0	96*	6.1	0.00		0.0		
" 17	7.6	0.20	6.40	20.0	12.0	96	7.1	1.80	0.03	15.0	0.0	96*	5.5	2.00	0.00	7.0	0.0	35	5.0	0.00	0.00	0.0	0.0	18
" 18													6.5	1.20	0.00	10.0	0.0	52	6.8	0.00	0.00	0.0	0.0	16
" 19	8.7	0.30	0.05	10.0	5.0	96	7.7	0.00	0.05	15.0	10.0	96*	7.6	0.40	0.15	7.0	1.0	96*	7.0	0.00	0.03	1.0	0.0	36
" 20	8.0	0.20	0.75	15.0	15.0	96	7.6	0.70	0.20	12.0	12.0	96*	7.1	0.60	0.10	12.0	3.0	96	6.3	0.10	0.05	0.0	0.0	84
" 21	8.6	0.90	0.05	20.0	20.0	96	7.6	0.40	0.30	12.0	8.0	96*	6.5	0.30	0.15	12.0	10.0	96*	6.4	0.30	0.05	0.1	0.0	83
" 24	4.0	0.20	0.45	15.0	10.0	96*	7.2	2.20	0.65	12.0	0.0	44	5.8	0.10	1.05	12.0	5.0	96*	4.4	1.80	0.55	0.0	0.0	32
" 25	8.3	0.10	0.10	15.0	15.0	96	6.9	0.40	2.75	15.0	20.0	96*	6.4	0.80	0.05	12.0	0.0	96*	4.8	0.10	0.00	0.0	0.0	16
" 26	10.7	0.00	0.05	15.0	8.0	96	6.3	0.60	0.20	8.0	0.0	96*	8.6	1.00	0.05	10.0	8.0	96	8.3	0.00	0.03	3.0	0.0	50
" 27	9.9	1.00	0.10	20.0	17.0	96*	7.2	1.20	0.35	15.0	15.0	96*	5.7	1.00	0.05	8.0	7.0	96	6.2	1.60	0.00	0.0	0.0	96*
" 28	10.4	0.10	0.04	20.0	17.0	96	9.5	0.20	0.21	15.0	15.0	96*	8.4	0.30	0.05	10.0	8.0	96	8.2	0.10	0.00	2.0	0.0	32
" 29	11.3	0.00	0.10	10.0	12.0	96	9.8	0.04	0.10	10.0	10.0	96*	7.6	0.10	0.05	8.0	3.0	96*	7.3	0.06	0.05	8.0	0.0	41
March 2	9.6	0.10	0.75	15.0	15.0	96	8.7	0.00	0.15	20.0	16.0	96*	6.1	0.20	0.00	8.0	0.0	96*	5.8	0.00	0.00	0.0	0.0	24
" 3	9.8	0.00	7.20	1.0	15.0	96	8.3	0.01	0.00	15.0	0.0	96*	5.5	0.20	0.00	8.0	0.0	55	4.8	0.20	0.00	0.0	0.0	16
" 4	9.8	0.10	0.05	20.0	20.0	96*	8.3	0.40	0.20	8.0	10.0	96*	6.6	0.60	0.00	8.0	3.0	96*	5.4	0.00	0.00	0.0	0.0	58
" 5	9.2	0.40	0.20	20.0	20.0	96*	8.1	0.80	0.30	15.0	15.0	96*	7.6	1.20	0.01	10.0	5.0	96	6.4	0.20	0.00	0.0	0.0	31
" 6	10.4	0.05	0.15	10.0	15.0	96*	9.4	1.40	0.05	10.0	10.0	96*	7.6	0.60	0.03	8.0	5.0	96	7.4	0.00	0.01	0.0	0.0	96
" 7	9.1	0.10	0.05	8.0	10.0	96*	9.	0.40	0.50	10.0	7.0	96*	7.4	0.20	0.00	5.0	5.0	96*	6.0	0.00	0.00	0.0	0.0	40
" 9	9.4	0.20	0.25		12.0	96*	8.4	0.80	0.3		8.0	86*	6.3	1.60	0.85	7.0	1.0	96*	7.0					
" 10	10.4	0.10	0.03	15.0	10.0	96	9.2	0.15	0.03	12.0	8.0	96*	7.8	0.20	0.03	7.0	3.0	96*						
" 11	9.6	0.30	0.25	20.0	15.0	86*	7.9	0.30	0.23	15.0	15.0	86*	6.1	1.30	0.03	10.0	7.0	86*	5.1	0.25	0.00	3.0	0.0	29
" 12	8.6	0.30	0.13	15.0	15.0	86	7.6	0.40	0.20	12.0	10.0	86*	4.1	1.25	0.00	12.0	5.0	86*						
" 13	9.3	0.20	0.30	12.0	12.0	96	8.4	0.25	0.15	17.0	10.0	86*	7.1	0.20	0.01	12.0	10.0	86*						
" 14	9.1	0.05	0.15	12.0	15.0	96	10.7	0.20	0.40	12.0	12.0	86*	6.7	0.01	0.03	10.0	8.0	96*						
" 16	7.8	0.20	0.15	20.0	15.0	96	6.6	0.00	0.00	18.0	15.0	86	5.2	1.80	0.00	7.0	0.5	96						
" 17	9.4	0.10	4.80	20.0	20.0	86	7.7	0.80	0.00	20.0	7.0	96*	5.8	1.20	0.00	10.0	2.0	96*						
" 18	9.3	0.10	0.80	1.0	20.0	96	8.4	0.15	0.03	12.0	20.0	96*	6.3	0.25	0.00	10.0	10.0	86*	4.8	0.10	0.00	2.0	0.0	30
" 19	9.2	0.10	0.15	20.0	25.0	86	8.	0.10	1.25	20.0	15.0	96*	6.2	0.20	0.03	1.0	12.0	86						
" 20	10.0	0.00	0.15	15.0	20.0	96	9.2	0.40	1.00	15.0	15.0	96*	7.0	1.20	0.00	15.0	8.0	86*						
" 21	9.7	0.05	0.25	20.0	15.0	96	7.7	0.40	0.10	20.0	12.0	96*	7.2	0.00	0.05	8.0	1.0	96						
" 23		0.10	0.08	25.0	25.0	96*		0.10	0.20	25.0	15.0	96*		0.20	0.05	15.0	1.0	84						
" 24	8.9	0.10	0.20	20.0	25.0	96	7.2	0.1	0.10	20.0	20.0	96*		0.80	0.15	15.0	2.0	96*						
" 25	8.2	0.20	0.60	20.0	25.0	96	7.7	0.25	0.00	25.0	10.0	96*	4.9	0.25	0.00	6.0	1.0	86	3.0	0.10	0.00	0.5	0.5	12
" 26	9.0	0.30	2.40	10.0	20.0	96		0.20	3.00	10.0	12.0	96*	6.5	0.20	0.60	10.0	3.0		3.0	0.20	0.00	2.0	0.0	96
" 27	8.1	0.10	0.35	20.0	25.0	86	7.8	0.25	2.40	2.0	2.0	96*	5.6	0.30	0.03	12.0	4.0	96*	3.7	0.25	0.03	0.0	0.0	27
" 30	8.9	0.00	4.00	2.0	25.0	96*		0.20	2.50	20.0	15.0	96		0.10	0.08	7.0	1.0	96*		0.20	0.00	0.5	0.0	17
" 31	9.0	0.20	0.05	20.0	25.0	96		0.20	0.60	20.0	15.0	96*		0.25	0.60	10.0	9.0	96*		0.05	0.03	0.5	0.5	37
April 1	8.9	0.25	0.35	15.0	20.0	96*		0.20	1.60	15.0	15.0	86*		0.30	0.03	12.0	7.0	96*		0.10	0.00	0.5	1.0	86
" 2	8.8	0.20	1.10	27.0	20.0	96		0.30	0.75	20.0	20.0	96*		0.30	0.40	15.0	5.0	96*		0.15	1.00	1.0	1.0	22
" 3	9.8	0.30	3.75	30.0	25.0	86		0.25	0.30	15.0	2.0	86*		0.20	0.00	3.0	0.2	96*		0.15	0.00	1.0	1.0	34
" 4		0.00	0.00	25.0	15.0	96		0.05	0.20	15.0	2.0	86*		0.3	0.75	6.0	1.0	96*		0.10	0.25	1.0	0.5	19
" 5	7.6	0.10	0.25	20.0	25.0	96*		0.08	1.50	15.0	15.0	86*		0.15	0.4	9.0	0.7	96*		0.20	0.00	1.0	1.0	11
" 7		0.15	3.00	25.0		96*		1.20	0.28	20.0		86*		1.20	0.05	5.0	0.	37		0.00	0.03	1.0	1.0	10
" 8	8.5	0.10	0.35	30.0	15.0	96		0.30	1.25	30.0	25.0	96*		0.40	0.00	10.0	0.5	96*		0.00	0.03	0.0	4.0	13
" 9	8.5	0.20	0.25	20.0	25.0	96		0.20	1.40	30.0	30.0	96*		1.00	1.00	12.0	1.0	96*		0.05	0.05	0.0	0.0	15
" 10		0.25	1.00	20.0	25.0	96		0.15	0.7	25.0	20.0	86		0.15	1.00	10.0	4.0	96*		0.30	0.00	2.0	0.0	30
" 11	7.8	0.40	0.25	25.0	25.0	96		0.20	2.50	25.0	12.0	86*		0.40	0.75	12.0	6.0	96*		0.00	0.00	0.5	1.0	26
" 13	8.2	0.20	3.00	20.0	4.0	96		1.20	2.30	20.0	30.0	86*												
" 14	8.1	0.10	3.00	18.0	0.0	96*		0.20	0.60	1.0	6.0	86*												
" 15	8.1	0.10	0.60	25.0	15.0	86*		0.15	2.50	30.0	12.0	96*												
" 16	9.1	0.15	0.7	20.0	15.0	96*		0.30	3.00	30.0	15.0	96*												
" 18	7.2	0.15	0.85	15.0	12.0	86*		0.20	3.00	30.0	4.0	86*												
" 20		0.20	0.00	20.0	20.0	96		0.30	0.00	20.0	7.0	86*												
" 21		0.40	0.00	25.0	1.0	96		0.30	0.00	12.0	8.0	86*												
" 27		0.0	7.0	25.0	20.0	96*		2.00	1.7	20.0	12.0	96*												
"

TABLE No. 4

COMPARISON OF 37 MENTHYLENE BLUE INCUBATION TESTS OF FILTER AND SETTLED EFFLUENTS, SHOWING TIME COLOR WAS RETAINED

	4½′ BEDS				6′ BEDS						7½′ BEDS				9′ BEDS				10½′ BEDS				12′ BEDS			
	1″ TO 2″ STONE		1″ TO 3″ STONE		1″ TO 3″ STONE		2″ TO 4″ STONE				1″ TO 2″ STONE		1″ TO 3″ STONE		1′ TO 3″ STONE		2″ TO 4″ STONE		½″ TO 1½″ STONE		1″ TO 2″ STONE		2″ TO 4′ STONE		4′ TO 6′ STONE	
DATE	Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent	
1908	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours	Days	Hours
May 25										12		17								19	1	2								
June 3									24*		24*										24*		24*							
" 5	7		21*		2	13	2	11					21*		21*		2	10	3	13					21*		21*		21*	
" 6	10		20*		2	1	6						20*		20*		3	3	20*						20*		20*		20*	
" 8		18	1	5		26	1	16					18*		16*			21		21					8		1	20	18*	
" 9	2	5	17*		1	7	1	19					17*		17*		1	9	2	10					17*		17*		17*	
" 10	6		16*		1	12	9						16*		16*		1	12	16*						16*		16*		16*	
" 11	2	9	15*			20	15*						15*		15*			20	3	15					15*		15*		15*	
" 12	14*		14*			20	2	16					14*		14*		1	15	4						14*		14*		14*	
" 13	14*		14*		1	10	14*						14*		14*		1	9	14*						14*		14*		14*	
" 15	6		14*		1	2	14*						14*		14*		1	8	14*						14*		14*		14*	
" 16	1	15	3	9		11	1	15					14*		14*		1	6	3	11					14*		14*		14*	
" 17	2	6	1	16		17	2	2					14*		14*		1	7	2	10					14*		14*		14*	
" 18	5		15		1	13	1	13					14*		14*		1	6	14*						14*		14*		14*	
" 19	3	14	8		1	15	2	12					14*		14*		1	15	14*						14*		14*		14*	
" 20		18	4			18	2	15					14*		14*			18	3	4					14*		14*		14*	
" 22	1	7	6			16		19					14*		14*			23		23					14*		14*		14*	
" 23		23	1	23		17		19					14*		14*		1	11		19					14*		14*		14*	
" 24	1	12	2	9	1	2	1	12					14*		14*		4		8						14*		14*		14*	
" 25	3	18	3	20	1	16	3	6					14*		14*		6		13						14*		14*		14*	
" 26	1	8		10	1	5	2	8					14*		14*		1	7	1	8					14*		14*		14*	
" 27	3	17	2	20	1	11	2	3					20*		20*		6		20*						20*		20*		20*	
" 29		16		18	1	10	1	12					18*		18*			20	1	19					18*		18*		18*	
" 30		17		20		14	1	16					17*		17*		1	3	2	12					17*		17*		17*	
July 1		10	1	3		16	1	18					16*		16*		2	8	2	13					16*		16*		16*	
" 2	1	3	1	3		14	1	7					15*		15*		1	3	1	16					15*		15*		15*	
" 3		20		19	1	4	1	7					14*		14*		1	12	1	11					14*		14*		14*	
" 6		14		22		6		19					2	9	18*			16	1	12					18*		18*		18*	
" 7	2	21	17*			13	1	3					17*		17*		2								17*		17*		17*	
" 9	6		16*			13	3	4					16*		16*		8		16*						16*		16*		16*	
" 10		15		20		14	1	8					14*		14*		1	15	1	10					14*		14*		14*	
" 11	1	14	5			18	1	15					14*		14*		1	23	8						14*		14*		14*	
" 14										13	1	13										21	2	12		13		23		
" 15										20											1	14	14*			22	3	12		
" 16									1	16	2	14									5		14*		14*		14*			
" 17									4		3	19									14*		14*		14*		14*			
" 24									2	14	2	14	1	17	1	17					3	17	14*		4		14*			
" 25									1				1		1						7	14	14*		14*		14*			
" 27											7		4		7						7		14*		14*		14*			
" 28										17	1	9		19		19						22	2	12		22		19		
" 29									2	28	2	18	1	19	2						14*		14*		14*		14*			
" 30									3	12	7	16			1	19					14*		14*		14*		14*			
" 31									4	13	14*			27		41					14*		14*		14*		14*			
August 1									14*		14*		14*		14*						14*		14*		14*		14*			
" 5									3		13		5		5						14*		14*		14*		14*			
" 6									4	5	14*		3	6	3	6					14*		14*		14*		14*			
" 12	1	5	1	20		21	2	1													14*		14*		14*		14*			
" 13	5	9	7	9	1	1	2														14*		14*		14*		14*			

	½″ TO 1½″ STONE		1″ TO 2″ STONE		½″ TO 1½″ STONE		1 TO 2 STONE		TO 1′ STONE		1 TO 2 STONE	
April 30		21	2	14	4		2	22	4*		4*	
May 1	4*		4*		4*		4*		4*		4*	
" 2	4*		4*		2	15	4*		4*		4*	
" 4	3	20	4*		4*		21*		4*		4*	
" 5	1	12	1	20	1	12	2	8	4*		4*	
" 6	1	21	3	21	4	3	5	12	4*		4*	
" 8	3	8	4*		4*		21*		4*		4*	

*Indicates that sample was taken out of incubator before blue color disappeared.

TABLE No. 5.

RELATIVE STABILITY NUMBERS OF SPRINKLING FILTER EFFLUENTS.

		6 Foot Beds								9 Foot Beds								12 Foot Beds							
		¼" to 1" Stone		1" to 2" Stone		½ to 4 Stone		4 to 6 Stone		¼ to 1" Stone		1" to 2" Stone		2" to 4 Stone		4 to 6" Stone		¼ to 1" Stone		1 to 2 Stone		2 to 4 Stone		4 to 6" Stone	
Date 1907-8		Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number
Results From Incubation at 20° C																									
October	9					33	27	33	27					48	36	33	27					88	57	33	27
"	10					40	32	1	1					57	42	33	27					96*	95	33	27
"	11					66	47	33	27					88	57	35	28					96*	95	42	33
"	23	31	37	35	28					55	40	40	32					55	40	59	43				
"	24	37	30	37	30					44	34	51	37					86	57	44	34				
"	25	56	40	31	25					86	57	42	33					42	33	86	57				
"	28	44	34	33	27					51	37	51	37					96*	95	86	57				
"	29	40	32	35	28					96*	95	46	35					96*	95	79	53				
"	30					31	25	31	25					31	25	31	25					51	25	31	25
"	31					18	16	18	16					33	27	18	16					37	30	4	4
November	1					31	25	24	21					55	40	31	25					79	53	31	25
"	7	55	40	48	36					48	36	84	56					84	56	53	39				
"	8	88	57	86	57					96*	95	96*	95					96*	95	96*	95				
"	9	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	11	26	22	24	21					44	34	48	36					44	34	48	36				
"	12	31	25	46	35					81	54	88	57					89*	97	96*	95				
"	13	96*	95	84	34					96*	95	96*	95					96*	95	96*	95				
"	21	95*	95	44	34					96*	95	96*	95					96*	95	42	33				
"	22	96*	95	79	53					96*	95	96*	95					96*	95	96*	95				
"	23	96*	95	96*	95					96*	95	96*	95					89*	95	95	60				
"	25	46	35	46	35					62	45	96*	95					96*	95						
"	26	60	47	53	39					96*	95	96*	95												
"	27	96*	95	57	42					96*	95	96*	95												
"	29					44	34	20	17					92	45	31	25					96*	95	42	33
"	30					96*	95	66	47					96*	95	96*	95					96*	95	96*	95
December	3	62	46	40	32					96*	95	40	32					96*	95	48	36				
"	4	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	5	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	6	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	7	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	9	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	10	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	11					40	32	22	19					40	32	26	22					51	37	33	27
"	12					37	30	26	22					53	39	40	32					57	30	57	42
"	13					40	32	22	19					96*	95	40	32							96*	95
"	16					53	39	20	17					96*	95	51	37					96*	95	57	42
"	17					53	39	37	30					96*	95	33	27					96*	95	64	46
"	18	96*	95	44	34					96*	95	33	27					96*	95	33	27				
"	19	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	20	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	21	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	23	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	24	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	26	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	27	96*	95	95	60					96*	95	96*	95					96*	95	86	95				
"	28	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	29	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	70	44
January	2	42	33	35	28	63	39	20	17	55	40	42	33	57	42	40	32	96*	95	53	39	57	42	48	36
"	3	96*	95	55	40	68	48	20	17	96*	95	96*	95	96*	95	55	40	96*	95	96*	95	96*	95	68	48
"	6	51	37	48	36	64	46	31	22	96*	95	64	46	73	50	33	27	96*	95	73	50	96*	95	51	39
"	7	96*	95	91	58	57	42	26	22	96*	95	96*	95	96*	95	48	36	96*	95	96*	95	96*	95	48	36
"	8	81	54	64	46	96*	95	29	24	96*	95	96*	95	96*	95	51	37	96*	95	96*	95	96*	95	51	37
"	9	75	52	48	36	96*	95	51	37	96*	95	81	54	96*	95	39	28	96*	95	96*	95	96*	95	86*	95
"	10	96*	95	79	53	96*	95	29	24	96*	95	96*	95	96*	95	62	45	96*	95	96*	95	96*	95	81	54
"	11	96*	95	96*	95	96*	95	59	43	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95
"	13	37	30	37	30	42	33	22	19	57	42	57	42	88	57	39	28	96*	95	96*	95	96*	95	57	30
"	14	46	35	46	35	53	39	22	19	42	33	26	22	96*	95	31	25	96*	95	96*	95	96*	95	53	39
"	15	57	42	75	52	57	42	22	19	84	56	96*	95	96*	95	57	42	96*	95	96*	95	96*	95	57	42
"	16	96*	95	96*	95	96*	95	18	16	96*	95	96*	95	96*	95			96*	95	96*	95	96*	95	88	57
"	17	96*	95	96*	95	96*	95	26	22	96*	95	96*	95	96*	95	70	49	96*	95	96*	95	96*	95	70	49
"	18	96*	95	96*	95	96*	95	59	43	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95
"	20	75	52	51	37	44	34	20	17	75	52	79	53	70	53	22	19	96*	95	96*	95	96*	95	44	34
"	21	96*	95	53	39	68	48	18	16	96*	95	96*	95	96*	95	29	24	96*	95	96*	95	96*	95	57	42
"	24	96*	95	86	57	64	46	17	13	96*	95	96*	95	96*	95	29	24	96*	95	96*	95	96*	95	45	36
"	25	96*	95	64	46	64	46	37	30	96*	95	96*	95	96*	95	64	46	96*	95	96*	95	96*	95	64	46
"	27	96*	95	70	49	48	36	18	16	96*	95	96*	95					96*	95	96*	95	96*	95	22	19
"	28	53	39	53	39					96*	95	96*	95			18	16	96*	95	96*	95				
"	29	96*	95	96*	95	96*	95	26	22	96*	95	96*	95	96*	95	66	47	96*	95	96*	95	96*	95	70	53
"	30	96*	95	96*	95	70	49	51	37	96*	95	96*	95	96*	95	66	47	96*	95	96*	95	96*	95	66	47
"	31	96*	95	84	56	96*	95	31	25	96*	95	96*	95	96*	95	37	30	96*	95	96*	95	96*	95	72	52
February	1	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	88	57
"	3	96*	95	96*	95	96*	95	73	53	96*	95	96*	95	96*	95	84	50	96*	95	96*	95	96*	95	96*	95
"	4					57	42	22	19					59	43	33	27					64	46	79	53
"	6	96*	95	96*	95	24	21	24	21	96*	95	96*	95	96*	95	53	40	96*	95	96*	95	96*	95	77	53
"	6	96*	95	81	54	53	39	26	22	96*	95	96*	95	96*	95	40	32	96*	95	96*	95	96*	95	53	39
"	7	96*	95	90	58	40	32	24	21	96*	95	96*	95	96*	95	33	27	96*	95	96*	95	96*	95	44	34
"	8	96*	95	96*	95	96*	95	86	57	96*	95	96*	95	96*	95	86	57	96*	95	96*	95	96*	95	96*	95
"	10					24	21	20	17					68	48	22	19					70	49	24	21
"	11	96*	95	96*	95	35	28	18	16	96*	95	96*	95	86	57	26	22	96*	95	96*	95	96*	95	42	33
"	12	89	57	84	56	48	36	18	16	96*	95	96*	95	96*	95	57	22	19	96*	95	96*	95	96*	95	41	37
"	13	96*	95	96*	95	79	53	84	56	75	52	96*	95	96*	95				96*	97	96*	95	96*	95	75	52
"	14	96*	95	96*	95	68	48			96*	95	96*	95	96*	95	96*	95		96*	95	96*	95	96*	95		
"	17	96*	95	77	53	46	30	26	22	96*	95	96*	95	77	53	35	26		96*	95	96*	95	77	53	40	32
"	18					66	47	33	27					96*	95	33	27					96*	95	35	28
"	19	96*	95	96*	95	79	53	37	31	96*	95	96*	95	68	48			96*	95	96*	95	96*	95	79	53
"	20	96*	95	96*	95	79	53	35	28	96*	95	96*	95	96*	95	79	53	96*	95	96*	95	96*	95	75	52
"	21	96*	95	96*	95	96*	95	51	37	96*	95	96*	95	96*	95	70	49	96*	95	96*	95	96*	95	96*	95
"	24	73	50	55	40	75	52	73	50	88	57	88	57	96*	95	73	50	96*	95	73	50	96*	95	73	50
"	25	96*	95	79	53	73	50	20	17	96*	95	96*	95	96*	95	22	19	96*	95	96*	95	96*	95	35	28
"	26	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	90	58	96*	95	96*	95	96*	95	96*	95
"	27	96*	95	96*	95	77	53	55	28	96*	95	96*	95	96*	95	53	39	96*	95	96*	95	96*	95	96*	95
"	28	96*	95	96*	95	96*	95	35	28	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	96*	95	70	49
"	29	96*	95	96*	95	96*	95	44	34	96*	95	96*	95	96*	95	20	17	96*	95	96*	95	96*	95	90	58
March	2	96*	95	96*	95	31	25	22	19	96*	95	96*	95	84	56	29	24	96*	95	96*	95	96*	95	56	39
"	3	96*	95	77	53	33	27	22	19	96*	95	96*	95	68	48	24	21	96*	95	96*	95	77	53	38	27
"	4	73	50	96*	95	66	47	24	21	96*	95	96*	95	96*	95	40	32	96*	95	96*	95	96*	95	70	53
"	5	96*	95	96*	95	68	48	42	33	96*	95	96*	95	96*	95	42	33	96*	95	96*	95	96*	95	68	48
"	6					88	57	77	53	96*	95	96*	95	96*	95	79	53	96*	95	96*	95	96*	95	96*	95
"	7	96*	95	96*	95	96*	95	24	21	96*	95	96*	95	96*	95	77	53	96*	95	96*	95	96*	95	88	57
"	9	81	54	81	54					96*	95	96*	95	96*	95			96*	95	96*	95	96*	95		
"	10	96*	95	96*	95	95	60			96*	95	96*	95	96*	95			96*	95	96*	95	96*	95	64	46
"	11	96*	95	96*	95	64	46	20	22	96*	95	96*	95	96*	95	40	32	96*	95	96*	95	96*	95		
"	12	96*	95	96*	95	86	57			96*	95	96*	95	96*	95			96*	95	96*	95	96*	95		
"	13	96*	95	96*	95	96*	95			96*	95	96*	95	96*	95			96*	95	96*	95	96*	95		
"	14	96*	95	96*	95	92	59			96*	95	96*	95	96*	95			96*	95	96*	95	96*	95		
"	16	44	34	35	28	26	22			96*	95	96*	95	42	33			96*	95	96*	95	96*	95		
"	17	81	54	96*	95	33	27			96*	95	96*	95	96*	95			96*	95	96*	95	96*	95		
"	18	96*	95	96*	95	66	47	20	17	96*	95	96*	95	96*	95	37	30	96*	95	96*	95	96*	95	66	47
"	19	96*	95	96*	95	62	45			96*	95	96*	95	96*	95			96*	95	96*	95	96*	95		
"	20	96*	95			79	53			96*	95	96*	95	96*	95			96*	95	96*	95	96*	95		
"	21	96*	95	96*	95	40	32			96*	95	96*	95	96*	95			96*	95	96*	95	96*	95		
"	23			48	36					96*	95	96*	95					96*	95	96*	95	77	52		
"	24	96*	95	84	56	84	56			96*	95	96*	95	96*	95			96*	95	96*	95	96*	95		
"	25					29	24	22	15	96*	95					22	19	96*	95	96*	95	96*	95	26	22
"	26	96*	95	96*	95	77	53			96*	95	96*	95			38	39	96*	95	96*	95			70	53
"	27	96*	95	96*	95	53	39	29	24	96*	95	96*	95	96*	95	29	24	96*	95	96*	95	96*	95	59	43
"	30	81	54	77	53	57	39	29	24	96*	95	96*	95	96*	95	41	25	96*	95	96*	95	96*	95	46	30
"	31	96*	95	96*	95	86	57	29	24	96*	95	96*	95	96*	95	37	30	96*	95	96*	95	96*	95	81	54
April	1	20	17	96*	95	51	37			96*	95	96*	95	96*	95	62	45	96*	95	96*	95	96*	95	53	39
"	2	96*	95	96*	95			20	17	96*	95	96*	95	96*	95	33	27	96*	95	96*	95	96*	95	48	36
"	3	51	37	96*	95	40	32	37	30	96*	95	96*	95	96*	95	29	24	96*	95	96*	95	96*	95	76	52
"	4	96*	95	96*	95	37	30	24	21	96*	95	96*	95	96*	95	35	28	96*	95	96*	95	96*	95	42	34
"	6	96*	95	70	49			16	13	96*	95	96*	95	96*	95	29	17	96*	95	96*	95	96*	95	24	21
"	7	81	54	70	49	33	39	16	13	96*	95	96*	95	81	54	32	19	96*	95	96*	95	81	54	32	19
"	8	96*	95	96*	95	41	37	16	13	96*	95	96*	95	96*	95	24	21	96*	95	96*	95	96*	95	29	24
"	9	88	57	96*	95	35	27	24	21	96*	95	96*	95	96*	95	24	21	96*	95	96*	95	96*	95	29	24
"	10	96*	95	96*	95	53	39	35	28	96*	95	96*	95	96*	95	16	35	96*	95	96*	95	96*	95	46	47
"	11	39	34	26	22	79	43	24	21	96*	95	96*	95			40	32	96*	95	96*	95	96*	95	77	42
"	13	92	70	77	56					96*	95	96*	95					96*	95	96*	95				
"	14	81	54	81	54					96*	95	96*	95					96*	95	96*	95				
"	15	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	16	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	18	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	20	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	21	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	27	96*	95	95*	95					96*	95	96*	95					96*	95	96*	95				
"	28	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	29	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	30	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
May	1	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	2	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	4	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	5	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				
"	6	96*	95	96*	95					64	46	96*	95					96*	95	96*	95				
"	8	96*	95	96*	95					96*	95	96*	95					96*	95	96*	95				

*Indicates that sample was taken out of incubator before blue color disappeared

TABLE No 6

RELATIVE STABILITY NUMBERS OF SPRINKLING FILTER EFFLUENTS

RESULTS FROM INCUBATION AT 20° C.

DATE 1908		4 FOOT BEDS								7½ FOOT BEDS								10½ FOOT BEDS							
		1" TO 2" STONE				1" TO 3 STONE				1" TO 2" STONE				1" TO 3" STONE				½" TO 1½" STONE				1 TO 2" STONE			
		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent	
		Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number
June	5	96°	95	96°	95	81	54	96°	90	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	6	96°	95	96°	95	55	40	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	8	[illegible]	32	64	46	37	42	88	87	96°	95	96°	95	46	32	46	35	96°	95	96°	95	96°	95	96°	95
"	9	96°	95	96°	95	68	48	96°	90	96°	95	96°	95	73	50	96°	95	96°	95	96°	95	96°	95	96°	95
"	10	96°	95	96°	95	79	53	96°	95	96°	95	96°	95	79	53	96°	95	96°	95	96°	95	96°	95	96°	95
"	11	96°	95	96°	95	44	34	96°	95	96°	95	96°	95	44	34	96°	95	96°	95	96°	95	96°	95	96°	95
"	12	96°	95	96°	95	[illegible]	54	96°	95	96°	95	96°	95	86	57	96°	95	96°	95	96°	95	96°	95	96°	95
"	13	96°	95	96°	95	73	52	96°	95	96°	95	96°	95	73	50	96°	95	96°	95	96°	95	96°	95	96°	95
"	15	96°	95	96°	95	57	42	96°	95	96°	95	96°	95	70	49	96°	95	96°	95	96°	95	96°	95	96°	95
"	16	86	57	96°	95	24	21	96°	87	96°	95	96°	95	66	47	96°	95	96°	[illegible]	96°	95	96°	95	96°	95
"	17	96°	95	88	57	37	30	96°	90	96°	95	96°	95	68	48	96°	95	96°	95	96°	95	96°	95	96°	95
"	18	96°	95	96°	95	81	54	96°	95	96°	95	96°	95	66	47	96°	95	96°	95	96°	95	96°	95	96°	95
"	19	96°	95	96°	95	86	57	96°	95	96°	95	96°	95	86	57	96°	95	96°	95	96°	95	96°	95	96°	95
"	20	40	32	96°	95	40	32	96°	95	96°	95	96°	95	40	32	96°	95	96°	95	96°	95	96°	95	96°	95
"	22	65	48	96°	95	35	28	42	33	96°	95	96°	95	51	37	51	37	96°	95	96°	95	96°	95	96°	95
"	23	51	37	96°	95	37	30	42	33	96°	95	96°	95	77	53	42	33	96°	95	96°	95	96°	95	96°	95
"	24	79	53	96°	95	67	42	79	53	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	25	96°	95	96°	95	88	57	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	26	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	27	96°	95	96°	95	77	53	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	29	33	27	40	32	75	52	79	53	96°	95	96°	95	44	34	96°	60	96°	95	96°	95	96°	95	96°	95
"	30	37	30	44	34	31	25	88	57	96°	95	96°	95	59	43	96°	95	96°	95	96°	95	96°	95	96°	95
July	1	35	28	39	43	30	28	92	59	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	2	59	43	59	43	31	25	68	48	96°	95	96°	95	59	43	86	67	96°	95	96°	95	96°	95	96°	95
"	3	44	34	42	43	62	45	68	48	96°	95	96°	95	[illegible]	53	77	53	96°	95	96°	95	96°	95	96°	95
"	6	31	25	48	36	13	12	42	33	96°	95	96°	95	35	28	79	53	96°	95	96°	95	96°	95	96°	95
"	7	96°	95	96°	95	20	24	59	[illegible]	96°	95	96°	95	96°	95	----	----	96°	95	96°	95	96°	95	96°	95
"	9	96°	95	96°	95	20	24	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	10	33	27	44	34	31	25	70	49	96°	95	96°	95	86	57	75	52	96°	95	96°	95	96°	95	96°	95
"	11	84	56	96°	95	40	32	86	57	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	12	64	46	96°	95	46	35	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	13	96°	95	96°	95	55	40	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
August	12	64	46	96°	95	46	35	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	13	96°	95	96°	95	55	40	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	14	96°	95	96°	95	44	34	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
		Correction for residual Chlorine applied after August 14								Correction for residual Chlorine applied after August 14.								Correction for residual Chlorine applied after August 14.							
"	17	96°	95	96°	95	48	30	96°	90	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	18	60	37	66	47	40	35	-----	-----	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	19	93	69	96°	95	45	34	-----	-----	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	[illegible]	96°	95
"	20	95	95	96°	95	96°	95	96°	90	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	21	96°	95	96°	95	88	57	96°	90	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	22	96°	95	96°	95	96°	95	96°	90	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	24	55	28	57	42	55	28	81	46	96°	95	96°	95	76	52	96°	95	96°	95	96°	95	96°	95	96°	95
"	25	48	36	52	38	41	32	-----	-----	96°	95	96°	95	96°	60	96°	95	96°	95	96°	95	96°	95	96°	95
"	27	87	56	96°	95	96°	58	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	28	68	47	96°	95	40	32	-----	-----	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	29	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	[illegible]	96°	95
"	31	68	48	96°	95	44	34	85	56	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
September	1	60	44	96°	95	37	30	72	50	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	2	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	4	64	51	85	56	57	53	96°	95	96°	95	96°	95	18	16	96°	95	96°	95	96°	95	96°	95	96°	95
October	6	39	31	38	30	35	28	96°	95	77	53	77	53	61	44	96°	95	96°	95	96°	95	96°	95	96°	95
"	7	37	30	37	30	27	22	96°	95	96°	95	96°	95	94	59	96°	95	96°	95	96°	95	96°	95	96°	95
"	8	29	24	29	24	29	24	57	42	96°	95	96°	95	56	41	96°	95	96°	95	96°	95	96°	95	96°	95
"	9	60	44	60	44	41	32	96°	95	96°	95	96°	95	63	45	96°	95	96°	95	96°	95	96°	95	96°	95
"	13	29	24	29	24	29	24	96°	95	64	40	59	43	39	29	96°	95	96°	95	96°	95	96°	95	96°	95
"	14	36	29	35	28	22	19	37	30	67	47	54	40	49	36	87	57	96°	95	96°	95	96°	95	96°	95
"	15	32	19	21	18	22	19	96°	95	40	30	54	40	30	25	75	52	96°	95	96°	95	96°	95	96°	95
"	16	19	16	21	18	21	18	96°	95	78	53	96°	95	26	22	77	53	96°	95	96°	95	96°	95	96°	95
"	19	30	[illegible]	30	17	10	10	61	46	90	58	90	58	22	19	45	31	96°	95	96°	95	96°	95	96°	95
"	20	30	14	31	18	63	45	96°	95	68	48	70	46	34	27	82	55	96°	95	96°	95	96°	95	96°	95
"	21	36	22	26	22	25	19	80	58	94	59	83	55	26	22	87	57	96°	95	96°	95	96°	95	96°	95
"	22	22	10	32	26	26	22	96°	95	65	46	65	46	29	24	96°	95	96°	95	96°	95	96°	95	96°	95
"	23	36	22	27	22	26	22	96°	95	79	58	96°	95	15	13	20	17	96°	95	96°	95	96°	95	96°	95
"	26	33	27	34	27	26	22	70	49	96°	95	34	27	64	46	20	17	96°	95	96°	95	96°	95	96°	95
"	28	16	14	16	14	16	14	96°	95	76	52	46	35	22	19	93	69	96°	95	96°	95	96°	95	96°	95
"	29	22	19	34	27	18	16	96°	95	96°	95	96°	95	67	47	96°	95	96°	95	96°	95	96°	95	96°	95
"	31	70	53	96°	95	78	53	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
November	2	30	29	36	29	45	35	96°	95	96°	95	96°	95	53	39	36	29	96°	95	96°	95	96°	95	96°	95
"	4	31	25	31	25	31	25	96°	95	54	40	60	44	31	25	68	48	96°	95	96°	95	96°	95	96°	95
"	5	30	25	32	25	46	35	96°	90	70	49	70	49	46	35	70	49	96°	95	96°	95	96°	95	96°	95
"	6	27	22	27	22	30	22	37	30	96	60	33	27	68	48	68	48	96°	95	96°	95	96°	95	96°	95
"	10	21	18	21	18	19	16	77	53	38	30	46	35	21	18	69	48	96°	95	37	30	96°	95	96°	95
"	11	21	18	21	18	22	19	96°	90	31	25	53	39	22	19	96°	95	96°	95	96°	95	96°	95	96°	95
"	12	29	24	46	35	29	24	87	57	53	39	45	35	29	24	96°	95	96°	95	96°	95	96°	95	96°	95
"	17	30	25	26	22	19	16	26	22	49	36	49	36	31	25	31	25	96°	95	96°	95	92	59	[illegible]	56
"	18	23	20	22	19	19	16	21	18	59	43	46	35	31	25	31	25	96°	95	96°	95	96°	95	96°	95
"	20	22	19	22	19	25	21	20	17	37	30	70	49	25	21	25	21	96°	95	96°	95	96°	95	96°	95
"	23	21	18	21	18	13	12	22	19	29	24	29	24	22	19	32	28	96°	95	83	55	55	[illegible]	96°	96
"	26	22	19	20	17	11	10	11	10	37	30	45	35	22	19	35	28	96°	96	46	35	68	48	82	55
"	27	10	9	10	9	9	8	9	8	32	26	32	25	14	12	17	15	96°	96	96°	95	79	53	47	36

TABLE No. 7

RELATIVE STABILITY NUMBERS OF SPRINKLING FILTER EFFLUENTS

RESULTS FROM INCUBATION AT 20° C.

DATE 1908		6 FOOT BEDS								9 FOOT BEDS								12 FOOT BEDS							
		1 TO 3 STONE				2 TO 4 STONE				1 TO 3 STONE				2 TO 4 STONE				2 TO 4 STONE				4 TO 6 STONE			
		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent		Filtered Effluent		Settled Effluent	
		Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number	Hours Blue Color is Retained	Relative Stability Number
May	2					26	22	37	30					42	33	57	42		42		50	26	22	31	25
June	2					96°	95	96°	95					96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
July	14	29	24	81	54	22	19	29	24	96°	95	96°	95	29	24	51	36	96°	95	96°	95	22	19	26	22
"	15	44	36	[illegible]	[illegible]	31	25	37	30	96°	95	96°	95	48	36	96°	95	96°	95	96°	95	40	32	40	32
"	16	96°	95	96°	95	48	36	48	36	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	48	36	59	43
"	17	96°	95	96°	95	40	32	70	49	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	79	53	96°	95
"	24	96°	95	96°	95	30	28	30	28	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	25	96°	95	96°	95	36	30	36	30	96°	95	96°	95	36	30	96°	95	96°	95	96°	95	53	39	96°	95
"	27	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	29	96°	95	96°	95	42	33	42	33	96°	95	96°	95	48	36	42	33	96°	95	96°	95	42	33	42	33
"	30	96°	95	96°	95	30	25	30	25	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	[illegible]	[illegible]	96°	95
"	31	96°	95	96°	95	39	28	90	58	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
August	1	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	5	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	6	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
		Correction for residual Chlorine applied after August 6								Correction for residual Chlorine applied after August 6								Correction for residual Chlorine applied after August 6							
September	8	96°	95	96°	95	89	58	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	9	96°	95	96°	95	89	58	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	10	96°	95	96°	95	55	41	61	44	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	11	75	52	96°	95	58	39	58	39	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	58	43	96°	95
"	14	96°	95	96°	95	42	33	42	33	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	15	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	[illegible]	96°	95	96°	58	96°	95
"	16	96°	95	96°	95	70	49	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	17	96°	95	96°	95	20	17	62	45	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	62	45	96°	95
"	18	62	45	96°	95	44	34	73	51	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	73	47	96°	95
"	21	47	36	96°	95	40	32	50	37	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	81	54	96°	95
"	22	44	34	96°	95	34	27	75	51	96°	95	96°	95	44	34	81	54	96°	95	96°	95	96	41	51	49
"	23	44	34	96°	95	31	25	46	34	96°	95	96°	95	31	25	46	34	96°	95	96°	95	57	43	96°	95
"	24	50	37	96°	95	40	30	58	40	96°	95	96°	95	30	25	58	40	96°	95	96°	95	40	30	96°	95
"	27	11	10	96°	95	24	19	96°	95	96°	95	96°	95	24	19	96°	95	96°	95	96°	95	96°	95	96°	95
"	28	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	29	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
October	1	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95
"	2	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95	96°	95

APPENDIX II

Incubation Tests

TABLES 1 TO 7

APPENDIX III

Studies of Disinfection of Sprinkling Filter Effluents

TABLES 1 TO 3

TABLE No. 1.

Results of Disinfection of Effluent From Twelve-foot Sprinkling Filter ⅛" to 1½" Stone

DATE	HOUR	FLOW FOR PREVIOUS TWO HOURS GALLONS		PARTS PER MILLION					BACTERIA PER C. C.						B. COLI PER C. C.				Temp. of Effluent C°.
				AV'L'BLE CHL'INE		DISSOL'D OXYGEN			GELATINE		AGAR TOTAL		ACID FORMERS		LACTOSE BILE		LACTOSE BROTH		
		Bleach	Sewage	Bleach Solution	Filter Effluent	Initial	Final	Residual Chlorine Final Effluent	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	
1907.																			
December 26	3.30 P. M.	6.8	292.7	312	6.6	-----	-----	+	200,000	1,100	-----	-----	-----	-----	-----	-----	-----	-----	9.7
" 27	9.30 A. M.	6.7	500.0	352	4.6	-----	-----	+	220,000	60	-----	-----	8,000	0	-----	-----	-----	-----	10.0
" 27	3.30 P. M.	6.7	500.0	336	4.4	-----	-----	+	80,000	288	-----	-----	-----	-----	1,000	100	-----	-----	
" 28	9.30 A. M.	6.7	500.0	324	4.3	-----	-----	+	160,000	2,500	-----	-----	5,000	0	10,000	10	-----	-----	11.0
" 28	12.00 Noon.	-----	-----	-----	-----	-----	-----	-----	170,000	10,000	-----	-----	0	30	-----	-----	-----	-----	
" 28	3.30 P. M.	-----	-----	-----	-----	-----	-----	-----	200,000	100,000	*	*	1,000	-----	1,000	100	-----	-----	
" 30	9.30 A. M.	6.7	616.7	284	3.0	-----	-----	-----	180,000	320	80,000	1,100	0	0	-----	-----	-----	-----	11.0
" 30	12.00 Noon.	6.7	500.0	300	4.0	-----	-----	—	190,000	600	130,000	600	10,000	0	100	100	-----	-----	
" 30	3.30 P. M.	6.7	500.0	308	4.0	-----	-----	+	160,000	400	40,000	300	10,000	200	1,000	10	-----	-----	
1908.																			
January 2	3.00 P. M.	4.2	750.0	320	1.8	6.8	6.4	—	210,000	10,000	-----	-----	-----	-----	-----	-----	-----	-----	8.0
" 3	9.30 A. M.	7.0	833.0	300	2.5	7.8	6.9	+	50,000	300	80,000	600	10,000	40	10,000	10	-----	-----	9.0
" 3	12.00 Noon.	6.8	1,000.0	284	1.9	-----	-----	—	50,000	2,100	100,000	700	30,000	300	100	100	-----	-----	
" 3	3.15 P. M.	6.9	833.0	272	2.2	-----	-----	+	310,000	2,300	*	*	-----	-----	-----	-----	-----	-----	
" 4	9.15 A. M.	7.0	833.0	264	2.2	-----	-----	—	†	†	16,000	110	4,000	30	1,000	100	-----	-----	
" 6	12.00 Noon.	7.1	833.0	240	2.0	7.8	4.9	—	170,000	26,300	8,000	330	4,000	200	10,000	1,000	-----	-----	7.0
" 6	3.15 P. M.	6.3	833 0	228	1.7	-----	-----	—	20,000	1,800	*	310	-----	40	1,000	100	-----	-----	
" 7	9.30 A. M.	6.8	833 0	244	2.0	-----	-----	+	80,000	1,400	7,000	180	4,000	120	1,000	10	-----	-----	8.0
" 7	12.00 Noon.	7.0	833.0	256	2.1	-----	-----	+	70,000	6,400	8,000	190	1,000	40	1,000	100	-----	-----	
" 7	3.15 P. M.	6.8	917 0	296	2.2	-----	-----	+	120,000	700	*	*	-----	-----	-----	-----	-----	-----	
" 8	9.30 A. M.	3.8	1,031.0	284	1.0	7.8	4.2	—	120,000	9,900	9,000	260	1,000	30	-----	-----	-----	-----	8.0
" 8	12.00 Noon.	7.0	1,070 0	280	1.8	-----	-----	+	100,000	3,700	5,000	130	1,000	20	1,000	100	-----	-----	
" 8	3.15 P. M.	7.2	995.0	284	2.0	-----	-----	+	†	†	8,000	80	4,000	0	1,000	10	-----	-----	
" 9	9.30 A. M.	7.1	886 6	260	2.0	7.8	7.8	+	†	†	9,000	110	4,000	20	1,000	100	-----	-----	7.0
" 9	12.00 Noon.	7.3	1,070 0	240	1.7	-----	-----	—	†	†	5,700	390	4,300	250	-----	-----	-----	-----	
" 9	3.15 P. M.	7.3	1,070 0	276	1.9	-----	-----	+	100,000	20,000	*	*	-----	-----	1,000	100	-----	-----	
" 10	9 30 A. M.	6.7	754.5	264	2.3	-----	-----	+	‡	8,500	2,700	120	2,000	10	1,000	100	-----	-----	7.0
" 10	12.00 Noon.	6.7	787 5	282	2.4	-----	-----	+	†	†	4,100	150	3,400	0	1,000	1,000	-----	-----	
" 10	3.15 A. M.	6.7	886 6	328	2.5	-----	-----	+	†	†	3,000	220	1,600	0	-----	-----	-----	-----	
" 11	9 30 A. M.	5.2	929 2	378	2.0	-----	-----	+	40,000	600	1,400	*	1,100	-----	-----	-----	-----	-----	
" 11	12 00 Noon.	7.3	1,032 0	354	2.5	-----	-----	+	130,000	1,900	2,400	130	1,700	0	1,000	1,000	-----	-----	
" 11	3.15 A. M.	-----	-----	-----	-----	-----	-----	-----	100,000	3,600	*	*	-----	-----	100	10	-----	-----	
" 13	9.30 A. M.	7.0	1,276.0	244	1.3	-----	-----	+	170,000	6,700	1,600	90	1,400	10	10,000	1,000	-----	-----	10.0
" 13	12.00 Noon.	7.0	1,276.0	242	1.3	-----	-----	+	180,000	5,800	7,400	210	4,000	60	-----	-----	-----	-----	
" 13	3.15 A. M.	6.8	1,190 0	268	1.5	-----	-----	+	180,000	4,900	6,100	190	5,600	30	100	1,000	-----	-----	
" 14	9.30 A. M.	6.6	886 6	236	1.7	7.6	7 0	+	40,000	1,800	1,400	70	1,100	0	-----	-----	-----	-----	9.0
" 14	12.00 Noon.	6.5	1,031 0	228	1.4	-----	-----	+	90,000	10,800	3,100	2,200	2,300	2,110	1,000	100	-----	-----	
" 14	3 15 P. M.	7.0	886.6	216	1.7	-----	-----	+	120,000	2,000	8,500	270	7,000	30	1,000	100	-----	-----	
" 15	9.30 A M.	7.1	939.7	204	1 5	-----	-----	+	100,000	2,500	3,200	120	1,800	20	100	10	-----	-----	9.0
" 15	12.00 Noon	7 1	886 6	214	1.7	-----	-----	+	170,000	5,400	2,900	160	1,800	30	1,000	100	-----	-----	
" 16	3 15 P M	7 7	939 2	216	1.6	-----	-----	+	30,000	1,300	1,400	70	900	0	1,000	100	-----	-----	
" 17	9.30 A. M.	6.0	886 6	260	1 7	9.2	6.7	+	60,000	800	1,600	90	1,000	0	1,000	10	-----	-----	8 0
" 17	12 00 Noon.	7 1	820 6	372	4 9	-----	-----	+	100,000	900	2,500	100	1,800	20	10,000	10	-----	-----	
" 17	3.15 P. M.	-----	-----	-----	-----	-----	-----	-----	240,000	1,800	900	90	900	0	-----	-----	-----	-----	
" 18	9.30 A. M.	4 1	820 6	300	1 5	10.4	6.8	+	80,000	700	1,500	150	500	0	1,000	100	-----	-----	
" 18	12.00 Noon.	7 5	820 6	292	2 6	-----	-----	+	60,000	500	1,200	90	1,100	0	100	100	-----	-----	
" 20	9 30 A M.	4 8	754 7	248	1 6	3.0	6.9	+	90,000	22,000	700	60	200	0	10	10	-----	-----	9.0
" 20	12.00 Noon.	7.4	754 5	248	2.3	-----	-----	—	730,000	*	2,000	90	1,400	30	-----	-----	-----	-----	
" 20	3.15 P. M	7.2	694 7	236	2.4	-----	-----	+	150,000	1,300	3,000	100	1,900	10	1,000	10	-----	-----	
" 21	9 30 A M.	6.7	694.7	232	2.2	10.0	5.9	+	80,000	1,700	700	100	300	0	1,000	10	-----	-----	9.0
" 21	12.00 Noon.	6.7	664.8	226	2.3	-----	-----	+	110,000	700	3,300	60	2,400	0	10	100	-----	-----	
" 21	3.15 P. M.	6.5	581 3	212	2.4	-----	-----	+	130,000	1,300	*	*	-----	-----	-----	-----	-----	-----	
" 22	9.30 A. M.	6.3	694 7	210	1.9	-----	-----	+	300,000	2,200	600	100	300	0	100	100	-----	-----	10.0
" 22	12.00 Noon.	7.4	820 6	196	1.7	-----	-----	+	70,000	400	500	110	100	0	10,000	100	-----	-----	
" 23	12.00 Noon.	6.9	694.7	170	1.7	-----	-----	+	70,000	400	*	70	-----	0	100	10	-----	-----	
" 23	3.15 P. M.	7.0	664.8	204	2.1	-----	-----	+	20,000	0	1,800	180	800	0	100	100	-----	-----	
" 24	9.30 A. M.	7.0	694 7	176	1 8	-----	-----	+	50,000	1,400	1,800	220	600	20	100	10	-----	-----	6.0
" 24	12.00 Noon.	7.3	754 5	178	1.7	-----	-----	+	70,000	400	6,200	130	1,400	10	-----	-----	-----	-----	
" 24	3.15 P. M.	7.6	634 9	186	2.2	-----	-----	+	100,000	1,500	1,300	100	200	10	1,000	1	-----	-----	
" 25	3.15 P. M.	-----	-----	-----	-----	-----	-----	—	20,000	12,700	1,600	60	1,200	10	-----	-----	-----	-----	
" 27	9.30 A. M.	3.2	886 6	160	0 6	-----	-----	—	110,000	1,000	500	40	200	0	-----	-----	-----	-----	
" 27	3.15 P. M.	7.2	664 8	191	2 1	--	-	-	180,000	3,100	8,100	40	4,600	10	1,000	100	-----	-----	1.5
" 28	9.30 A. M.	7 1	694 7	211	2 1	-----	-----	+	110,000	2,100	*	*	-----	-----	100	100	-----	-----	
" 28	12.00 Noon.	7 1	754.5	219	2.0	-----	-----	+	250,000	7,800	2,400	50	1,700	20	10,000	1,000	-----	-----	
" 28	3 15 P M.	7.0	754 5	249	2.3	8 6	6.0	+	60,000	2,700	800	30	500	0	-----	-----	-----	-----	2.5
" 29	9.30 A. M.	6.5	581 3	262	2 9	-----	-----	+	130,000	1,600	600	90	200	0	-----	-----	-----	-----	
" 29	12 00 Noon.	6 4	581 3	262	2.8	--	-	+	80,000	†	1,100	100	700	10	1,000	100	-----	-----	
" 29	3 15 P M.	6.3	527 6	263	3 1	9 4	9 1	+	200,000	1,800	1,400	*	300	-----	1,000	100	-----	-----	8.0
" 30	9.30 A. M.	6.0	527 6	269	3.0	--	-	+	50,000	700	1,200	130	200	0	1,000	100	-----	-----	
" 30	12.00 Noon.	7 0	527 6	267	3.5	-----	-----	0.30	90,000	800	1,900	80	500	0	-----	-----	-----	-----	
" 30	3.15 P. M.	7 0	4.. 8	247	3 7	9 8	10 1	1.30	80,000	800	1,100	100	400	0	100	1,000	-----	-----	6.5
February 3	3.15 P. M.	7 6	694 7	142	1 5	8 8	8 1	0 5	170,000	6,300	1,500	50	1,200	0	1,000	10	-----	-----	6.0
" 5	9.30 A. M.	5.5	694.7	190	1.5	-----	-----	0 20	70,000	12,600	800	70	300	10	100	10	-----	-----	
" 5	12 00 Noon	6.7	724 6	194	1.8	----	-----	0 30	90,000	9,700	300	30	100	0	1,000	10	-----	-----	5.5
" 6	3.15 P. M.	11.6	694.7	207	3.4	11 6	10.1	1.40	50,000	30,000	*	*	-----	-----	100	1,000	-----	-----	6.0
" 7	9 30 A. M.	10.9	820 6	202	2 7	-----	----	2.10	30,000	300	800	110	500	10	100	100	-----	-----	
" 7	12.00 Noon.	10 8	694 7	198	3 0	---	-	1 50	30,000	200	2,100	100	600	0	-----	-----	-----	-----	
" 7	3 15 P. M.	10 9	554 4	195	3 8	8 0	11 9	1 70	60,000	600	1,000	50	200	10	1,000	100	-----	-----	6.0
" 8	9 30 A. M.	11.1	754 5	188	2 7	---	-	1 20	†	300	500	50	100	0	1,000	1,000	-----	-----	
" 11	9.30 A. M.	11.4	2,700 0	160	0 7	-----	-----	0 03	30,000	26,400	700	170	400	0	100	100	-----	-----	
" 11	3.15 P. M.	9.5	787.5	131	1.5	-----	-----	0 18	40,000	1,200	1,600	100	600	30	1,000	100	-----	-----	7.5
" 12	9.30 A. M.	7.3	754.5	112	1.1	-----	-----	0 20	140,000	1,800	500	600	100	10	-----	-----	-----	-----	
" 12	12.00 Noon.	7.0	995.5	116	0.8	-----	-----	0 00	110,000	14,400	*	*	-----	-----	100	100	-----	-----	
" 12	3.15 P. M.	7.0	959 2	108	0 8	-----	-----	0 00	80,000	7,600	*	*	-----	-----	10	10	-----	-----	7.0
" 13	9.30 A. M.	6.7	886.6	105	0.8	-----	-----	0 08	120,000	5,500	1,600	100	500	0	100	10	-----	-----	
" 13	12 00 Noon.	6.7	922.9	102	0 7	---	-	0 00	-----	-----	3,900	1,170	1,900	400	1,000	1,000	-----	-----	
" 13	3.15 P. M.	6.7	959.2	102	0.7	-----	-----	0.00	170,000	4,700	*	*	-----	-----	-----	-----	-----	-----	7.5
" 14	9.30 A. M.	6.3	886.6	103	0.7	-----	-----	0 10	60,000	24,200	‡	‡	-----	-----	1,000	1,000	-----	-----	
" 14	12.00 Noon.	9.7	886.6	101	1.1	-----	-----	0.20	70,000	12,400	‡	‡	-----	-----	-----	-----	-----	-----	
" 14	3 15 P. M.	10.0	886 6	110	1.2	-----	-----	0.25	20,000	4,300	‡	‡	-----	-----	100	100	-----	-----	8.5
" 15	9 30 A. M.	9.0	959.2	118	1.1	-----	-----	0 30	60,000	700	-----	-----	-----	-----	10	10	-----	-----	
" 15	12.00 Noon.	8.9	1,032 0	114	1.0	-----	-----	0 00	80,000	22,900	-----	-----	-----	-----	1,000	10	-----	-----	9.0
" 18	9 30 A. M.	8.2	886 6	100	0.9	-----	-----	0 20	120,000	20,800	3,200	600	2,500	0	1,000	10	-----	-----	
" 18	12 00 Noon.	8.4	853 6	105	1.0	-----	-----	0.00	150,000	44,000	24,000	1,600	20,000	1,200	-----	-----	-----	-----	
" 18	3 15 P M.	-----	-----	-----	-----	-----	-----	-----	80,000	700	800	50	300	0	100	100	-----	-----	
" 19	9.30 A. M.	10.1	820.6	116	1.4	-----	-----	0 50	100,000	110,000	300	990	100	630	-----	-----	-----	-----	
" 19	12.00 Noon.	10.1	886.6	111	1.2	-----	-----	0 10	‡	‡	*	*	*	*	1,000	10	-----	-----	
" 19	3.15 P. M.	10.1	1,032 0	112	1.1	9.8	8.7	0.15	61,000	‡	2,600	800	1,200	0	100	100	-----	-----	7.0
" 20	9.30 A. M.	10.1	939 2	112	1.2	-----	-----	0 20	40,000	6,400	1,000	20	500	0	1,000	100	-----	-----	
" 20	12.00 Noon.	10.1	853 6	114	1.3	-----	-----	0 05	60,000	15,300	2,800	130	1,800	80	100	100	-----	-----	
" 20	3.15 P. M.	10.2	787.5	121	1.6	9.0	8.0	0.25	140,000	1,700	800	90	300	0	-----	-----	-----	-----	7.0
" 21	9 30 A. M.	10.1	820.6	135	1.6	-----	-----	0 65	20,000	700	1,200	10	600	0	100	1	-----	-----	
" 21	12.00 Noon.	10.2	694 7	144	2.2	-----	-----	0.65	20,000	1,000	500	60	500	0	-----	-----	-----	-----	
" 21	3.15 P. M.	10.3	724 6	145	2.0	9.6	8.6	1 25	30,000	800	*	70	-----	0	100	10	-----	-----	7.0
" 24	9 30 A. M.	10.0	820 6	188	2.3	-----	-----	1.8	100,000	200	200	40	100	0	10	10	-----	-----	
" 24	12.00 Noon.	10 2	959 2	168	1 8	-----	-----	0 00	220,000	9,300	6,200	160	3,400	70	-----	-----	-----	-----	
" 24	3.15 P. M.	10.1	886.6	142	1 6	8.2	4.0	0.00	20,000	10,700	17,600	640	4,700	140	1,000	100	-----	-----	7.0
" 25	9 30 A. M.	9.8	634 9	138	2.1	-----	-----	0.80	80,000	700	1,800	10	400	0	-----	-----	-----	-----	
" 25	12 00 Noon.	9 9	608 1	127	2.0	-----	-----	0 50	80,000	1,000	3,300	60	1,600	0	1,000	10	1,000	10	
" 25	3.15 P. M.	9.9	554 2	122	2.1	9.2	8.3	0.70	20,000	1,000	600	30	100	0	10,000	10	10,000	10	7.5
" 26	9 30 A M.	9.7	959 2	116	1.2	-----	-----	0.22	40,000	4,700	900	70	300	0	1,000	100	1,000	100	
" 26	12.00 Noon.	9.7	959 2	117	1.2	-----	-----	0.28	150,000	18,300	8,900	150	4,000	30	-----	-----	-----	-----	
" 26	3.15 P. M.	9.7	959.2	116	1.2	9.6	10.7	0 25	60,000	9,500	900	90	600	0	100	10	1,000	100	7.0
" 27	9.30 A. M.	-----	-----	-----	-----	-----	-----	-----	120,000	8,300	900	30	400	10	-----	-----	-----	-----	
" 27	12.00 Noon.	7.9	787.5	115	1.1	-----	-----	0.28	80,000	1,200	1,200	70	400	0	1,000	10	100	100	
" 27	3.15 P. M.	9.8	694 7	108	1.5	14.0	10.4	0 30	90,000	1,400	400	40	100	0	100	100	100	10	8.0
" 28	9 30 A M	9 8	754 5	86	1.1	-----	-----	0 24	220,000	6,300	1,300	110	600	30	1,000	1,000	100	1,000	
" 28	12.00 Noon.	9.8	853.6	104	1.2	-----	-----	0 30	50,000	2,200	1,700	10	1,300	0	-----	-----	-----	-----	
" 28	3.15 P. M.	9.7	724 6	113	1.5	9.4	11.5	0 36	1	1,400	600	30	300	10	10,000	100	100	10	6.0
" 29	9.30 A. M.	8.2	694 7	104	1.2	-----	-----	0 30	130,000	400	4,800	170	400	0	1,000	100	100	1,000	
" 29	12 00 Noon	8.1	608.1	128	1.7	-----	-----	0.30	‡	900	500	50	300	0	1,000	10	1,000	1	
March 2	9 30 A M	7.0	694.7	128	1.3	-----	-----	0 15	80,000	1,000	400	100	300	0	-----	-----	-----	-----	
" 2	12 00 Noon	7.0	634.9	138	1.5	-----	-----	0.00	120,000	1,500	700	100	600	10	1,000	100	1,000	10	
" 3	3 15 P M	10.2	664.8	131	2.0	8.2	9.6	0.28	70,000	600	500	50	200	0	10,000	1,000	100	100	7.0
" 3	9.30 A. M.	10.5	694.7	140	2.1	-----	-----	0.65	60,000	1,000	1,600	50	1,000	0	1,000	100	100	1	
" 3	12.00 Noon.	10.6	724.6	153	2.2	-----	-----	0.50	120,000	1,200	4,000	100	3,200	0	-----	-----	-----	-----	
" 3	3.15 P. M.	10.5	664 8	154	2.4	9.0	9.8	0 80	90,000	900	500	40	300	0	1,000	10	100	100	8.0
" 4	9.30 A. M.	10.1	694 7	146	2.1	-----	-----	0.70	60,000	‡	1,200	30	800	0	10	100	1,000	100	
" 4	12.00 Noon.	10.1	664 8	143	2.1	-----	-----	0 85	150,000	600	1,000	60	1,000	0	100	100	1,000	10	
" 4	3 15 P M	10.3	554.4	133	2.4	8.6	9.8	0.75	20,000	100	1,200	50	600	0	-----	-----	-----	-----	8.0
" 5	9.30 A. M.	9.7	694 7	119	1 6	-----	-----	0.50	70,000	900	1,000	30	800	0	-----	-----	-----	-----	
" 5	12 00 Noon.	9.6	634.9	125	1.9	-----	-----	0.28	60,000	1,400	2,400	200	1,800	0	10	10	100	100	
" 5	3 15 P. M.	9.4	554.4	142	2.4	9.4	9.2	0.60	40,000	300	*	*	*	*	100	100	10,000	100	7.5
" 6	9 30 A. M.	9.0	820.5	168	1.8	-----	-----	0.50	90,000	700	1,000	240	700	0	1,000	100	1,000	100	
" 6	12 00 Noon.	10 4	820.5	170	2.1	-----	-----	1.00	80,000	2,000	2,100	20	1,400	0	-----	-----	-----	-----	
" 6	3.15 P. M.	10.6	886.6	171	2.0	11.6	10.4	1.20	‡	‡	1,300	150	800	0	1,000	10	10,000	1,000	7.0
" 7	9 30 A. M.	10.5	959.2	165	1.8	-----	-----	0.65	-----	-----	1,400	40	900	0	100	10	1,000	10	
" 7	12 00 Noon	10.4	886 6	161	1.9	9.2	10.1	0.30	120,000	900	1,300	70	700	0	-----	-----	-----	-----	9.0
" 9	9 30 A. M.	10.3	886.6	114	1.3	-----	-----	0.38	110,000	1,600	1,200	60	1,000	0	1,000	100	1,000	100	
" 9	12.00 Noon.	10.4	992.9	117	1.3	-----	-----	0.00	130,000	2,000	1,700	60	1,400	10	-----	-----	-----	-----	
" 9	3.15 P. M.	10.5	787 5	145	1.9	8.9	9.6	0.60	60,000	900	900	50	400	0	10,000	100	1,000	10	8.0
" 10	9 30 A. M.	10.3	886 6	153	1.8	10.0	10.4	0.55	90,000	1,300	1,200	100	70	20	1,000	1,000	-----	-----	8.0
" 10	12 00 Noon.	10.5	886 6	156	1.8	-----	-----	0 45	80,000	4,600	600	60	300	0	-----	-----	-----	-----	
" 10	3.15 P. M.	10 9	787.5	148	2.0	-----	-----	0 50	90,000	5,100	600	40	400	10	1,000	100	-----	-----	
" 11	9 30 A M.	10.3	886 6	146	1.7	9.4	9.0	0.28	60,000	1,400	1,300	120	1,000	10	1,000	10	-----	-----	8.0
" 11	12.00 Noon	10 5	787.5	146	1.9	-----	-----	0 35	140,000	1,700	700	90	300	0	100	100	-----	-----	
" 11	3 15 P. M	10 9	754.5	157	2.2	-----	-----	0 60	100,000	1,000	3,500	70	2,800	0	-----	-----	-----	-----	
" 12	9.30 A. M.	10.3	886 6	157	1.8	9.0	8 6	0.50	80,000	1,300	900	60	200	0	-----	-----	-----	-----	8.5
" 12	12 00 Noon.	10 6	820 5	152	1.9	-----	-----	0.50	100,000	1,400	1,200	50	800	0	1,000	100	-----	-----	
" 12	3 15 P M	-----	-----	-----	-----	-----	-----	-----	90,000	1,000	500	40	300	0	1,000	100	-----	-----	
" 13	9.30 A. M.	10.3	820.5	150	1.9	9.2	9.5	0.60	20,000	300	400	80	100	0	100	100	1,000	100	9.0
" 13	12.00 Noon.	10.5	724 6	140	2.0	-----	-----	0.55	30,000	1,200	600	20	200	0	100	100	1,000	100	
" 13	3 15 P. M	-----	-----	-----	-----	-----	-----	-----	20,000	600	200	100	100	0	-----	-----	-----	-----	
" 14	9.30 A. M.	10.3	820.5	130	1.5	9.0	9.5	0.35	90,000	800	400	10	200	0	100	100	100	100	10.0
" 14	12.00 Noon	-----	-----	-----	-----	-----	-----	-----	60,000	1,500	*	30	-----	0	100	100	10,000	10	
" 16	3.15 P. M.	10 2	694 7	123	1.8	-----	-----	0.08	90,000	900	1,900	30	600	0	100	1,000	1,000	10	
" 17	9.30 A. M.	10.5	754 5	133	1.8	9.2	9.4	0 35

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TABLE No. 2

RESULTS OF DISINFECTION OF SPRINKLING FILTER EFFLUENTS

Period Covered 1909		10½ Foot Bed. ⅝ to 1½ Inch Stone										7½ Foot Bed. 1 to 3 Inch Stone										4½ Foot Bed. 1 to 3 Inch Stone									
		Parts per Million		Bacteria per C. C.						B Coli per C. C.			Parts per Million		Bacteria per C. C.						B Coli per C. C.			Parts per Million		Bacteria per C. C.						B Coli per C. C.		
				Gelatine		Agar Total		Acid Formers		Lactose Bile					Gelatine		Agar Total		Acid Formers		Lactose Bile					Gelatine		Agar Total		Acid Formers		Lactose Bile		
Date	Hour	Available Chlorine	Residual Chlorine	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Temp. of Effluent C°	Available Chlorine	Residual Chlorine	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Temp. of Effluent C°	Available Chlorine	Residual Chlorine	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Temp. of Effluent C°
June 5	11.00 A. M.	2.7	0.50	180,000	60,000	90,000	3,000	30,000	0			18.5	1.0	0.00	660,000	80,000	150,000	79,000	110,000	68,000			18.5	1.9	0.00	1,000,000	130,000	140,000	2,000	120,000	0			18.5
" 5	3.15 P. M.	2.2	0.40	100,000	100,000	30,000	25,000	10,000	8,000	1,000	10		1.6	0.00	670,000	150,000	170,000	8,000	110,000	0	10,000	10		1.8	0.00	510,000	120,000	120,000	260,000	90,000	80,000	10,000	100	
" 6	11.00 A. M.	2.3	0.25	120,000	10,000					1,000	100		1.6	0.10	660,000	30,000	80,000	1,000	50,000	0	10,000	1,000	17.5	1.6	0.00	780,000	120,000	70,000	10,000	60,000	0	10,000	1,000	17.0
" 8	3.15 P. M.	2.2	0.10	90,000	1,000	30,000	5,000	10,000	0	100	100	19.5	1.5	0.00	220,000	50,000	20,000	10,000	10,000	3,000	10,000	100	20.0	1.5	0.00	340,000	25,000	30,000	60,000	30,000	50,000	100,000	10	20.0
" 9	11.00 A. M.	2.0	0.20	90,000	9,000		3,000					19.0	1.4	0.00	910,000	50,000	130,000	2,300	80,000	1,000			19.0	1.6	0.00	890,000	98,000	300,000	9,000	170,000	0			19.0
" 9	3.15 P. M.	2.1	0.15	130,000	15,000	50,000	900	20,000	0	1,000	100		1.4	0.00	910,000	24,000	58,000	5,000	42,000	1,000	10,000	1,000		1.7	0.00	710,000	26,000	51,000		35,000		100,000	10	
" 10	11.00 A. M.	1.9	0.25	160,000	19,000	3,400	200	1,200	0	100	100		1.3	0.00	440,000	15,000	70,000	1,000	60,000	0	100,000	100		1.5	0.00	870,000	107,000	140,000	2,000	80,000	0	10,000	10	
" 10	3.15 P. M.	1.1	0.25				800		0				1.4	0.00			20,000		10,000					1.6	0.00			60,000	1,000	40,000	0			
" 11	11.00 A. M.	2.3	0.50	90,000	1,400	3,100	60	1,000	0			19.0	1.5	0.00	670,000	27,000		400		0			19.0	1.6	0.00	730,000	19,000	150,000	500	100,000	200			19.0
" 11	3.15 P. M.	1.4	0.90			120,000	1,800	1,000	0				1.6	0.00			55,000	8,000	24,000	0				1.7	0.00			150,000	84,000	100,000	56,000			
" 12	11.00 A. M.	1.5	0.75	140,000	1,200	5,500	60	1,700	0			18.5	1.7	0.00	800,000	19,000	50,000	500	20,000	0			18.0	1.8	0.00	2,100,000	39,000	100,000	400	60,000	100			18.5
" 12	3.15 P. M.	1.4	0.80	70,000	200					1,000	100		1.9	0.25	720,000	110,000					1,000	100		1.9	0.20	110,000	38,000					100	1,000	
" 13	11.00 A. M.	2.1	0.75	140,000	900	1,200	10	200	0	100	100	18.5	1.6	0.10	340,000	10,000	52,000		30,000		100,000	100	19.0	1.6	0.10	180,000	40,000		12,000		1,000	1,000	1	18.5
" 15	11.00 A. M.	2.6	0.85	60,000	900	1,000	170	300	0				1.5	0.00	400,000	40,000	420,000		220,000				20.0	1.7	0.00	490,000	20,000	80,000	1,000	50,000	0			20.0
" 15	3.15 P. M.	2.6	0.85	80,000	500	800	310	0	0				1.6	0.00	100,000	17,000								1.8	0.00	140,000	14,000	20,000	1,000	10,000	0			
" 16	11.00 A. M.	1.9	0.70	110,000	700	1,000	450	400	0	1,000	10	18.0	1.4	0.00	360,000	20,000	58,000	600	27,000	0	1,000	1,000	18.0	1.4	0.00		23,000	70,000	1,800	20,000	500	10,000	100	18.0
" 16	3.15 P. M.	2.0	0.60	70,000	120	1,000	330	200	0				1.5	0.00	160,000	18,000		1,000		200				1.4	0.00	180,000	47,000	60,000	700	40,000	0			
" 17	11.00 A. M.	2.4	0.70	120,000	700	2,800	320	1,300	0			18.5	1.7	0.00	410,000	24,000	75,000	400	60,000	0			19.0	1.8	0.00	520,000	11,000	60,000	600	30,000	0			19.0
" 17	3.15 P. M.	2.6	0.55	30,000	500	1,100	300	0	0	100	1,000		1.8	0.00	190,000	8,000	320,000	300	30,000	0	10,000	100		2.0	0.00	180,000	12,000	50,000	100	0	100	1,000	100	
" 18	11.00 A. M.	2.1	0.55	130,000	1,200	2,300	550	200	0			19.0	1.7	0.00	390,000	9,000	120,000	1,100	33,000	0			19.0	1.8	0.00	310,000	8,000	60,000	800	20,000	100			19.0
" 18	3.15 P. M.	2.2	0.65	90,000	3,100	1,000	900	0	180	10	100		1.7	0.00	100,000	13,000	45,000	500	30,000	0	1,000	10		1.7	0.00	310,000	12,000	39,000	800	20,000	0	100,000	100	
" 19	11.00 A. M.	2.4	0.75	80,000	1,000	1,500	470	600	0	1,000	10	19.0	1.9	0.00	120,000	12,000	63,000	300	49,000	0	1,000	100	19.0	2.0	0.00	780,000	23,000	80,000	600	40,000	0	100,000	100	19.0
" 19	3.15 P. M.	2.2	0.20	400,000	2,000								1.6	0.00	220,000	9,000								1.7	0.00	120,000	7,000							
" 20	11.00 A. M.	2.2	0.15	100,000	2,100	2,000	310	800	0	1,000	1	21.0	1.6	0.00	400,000	12,000	60,000	200	30,000	0	1,000	10	21.0	1.7	0.00	530,000	18,000	65,000	700	40,000	0	1,000	10	21.0
" 22	11.00 A. M.	2.2	0.15	150,000	4,500	2,800	270	300	0			22.0	1.5	0.00	310,000	79,000	26,000	700	10,000	100			23.0	1.7	0.00	230,000	31,000	41,000	300	31,000	0			22.5
" 22	3.15 P. M.	1.9	0.00	80,000	3,500	1,200		200	0				1.8	0.00	360,000	20,000	10,000	3,700	5,000	100				1.4	0.00	180,000	30,000	8,000	700	2,000	0			
" 23	11.00 A. M.	1.4	0.00	120,000	3,600	5,000	1,500	900	0			22.5	1.0	0.00	180,000	33,000	21,000	600	6,000	100			23.0	1.1	0.00	220,000	12,000	18,000	1,000	9,000	700			23.0
" 23	3.15 P. M.	1.6	0.00	100,000	7,400	3,300	980	800	0	1,000	1,000		1.1	0.00	220,000	16,000	7,000	500	3,000	0	1,000	100		1.2	0.00	800,000	18,000	7,000	500	3,000	100	10,000	100	
" 24	11.00 A. M.	1.4	0.00	210,000	2,200					100	100	22.0	1.1	0.00	230,000	15,000					10,000	100	22.0	1.2	0.00		67,000					1,000	1,000	22.0
" 24	3.15 P. M.																																
" 25	11.00 A. M.	2.0	0.15	130,000	3,300	4,400	1,500	300	0			21.5	1.2	0.00	570,000	18,000	30,000	1,700	13,000	0			21.0	1.3	0.00	510,000	35,000	41,000	2,100	31,000	900			21.0
" 26	3.15 P. M.	2.0	0.15		1,200	2,100	600	100	0				1.2	0.00		19,000	42,000	6,900	11,000	200				1.3	0.00	590,000	38,000	51,000	4,700	39,000	300			
" 26	11.00 A. M.	2.0	0.15	440,000	4,000	1,700	1,400	400	0	1,000	100	21.0	1.3	0.00	510,000	40,000	210,000	1,100	40,000	0	1,000	100	21.0	1.3	0.00	390,000	61,000	78,000	1,400	68,000	400	1,000	100	21.0
" 26	3.15 P. M.	2.1	0.15	220,000	3,400								1.3	0.00	470,000	42,000								1.5	0.00	750,000	37,000							
" 27	11.00 A. M.	2.2	0.20	200,000	2,000							20.0	1.5	0.00	300,000	18,000							20.5	1.4	0.00	470,000	30,000							20.5
" 29	11.00 A. M.	2.2	0.15	350,000	5,400		180	1,200	0	1,000	100	21.0	1.5	0.00	330,000	46,000	120,000	700	25,000	500	10,000	10	21.0	1.6	0.00	360,000	86,000	200,000	1,500	50,000	1,500	1,000	1,000	21.0
" 29	3.15 P. M.	1.8	0.05	120,000	2,300								1.4	0.00	120,000	20,000								1.5	0.00	330,000	28,000							
" 30	11.00 A. M.	1.5	0.15	150,000	4,100		480		0			21.5	1.1	0.00	620,000	89,000	40,000	1,300	30,000	1,100			21.0	1.1	0.00	310,000	200,000	20,000	11,000	10,000	9,500			21.0
" 30	3.15 P. M.	1.6	0.15	140,000	2,300		950		20	100	100		1.3	0.00	590,000	86,000		1,300		700	1,000	100		1.3	0.00	720,000	75,000		1,000		400	1,000	100	
July 1	11.00 A. M.	1.9	0.40	180,000	2,400	3,700	410	800	0	10,000	10	21.5	1.5	0.00	460,000	31,000	60,000	10,000	18,000	100	10,000	100	21.0	1.6	0.00	460,000	45,000	52,000	3,100	22,000	1,200	10,000	100	21.0
" 1	3.15 P. M.	2.0	0.15	130,000	2,100								1.1	0.00	560,000	30,000									0.00	480,000	105,000							
" 2	11.00 A. M.	1.8	0.15	150,000	2,300	6,800	950	3,200	500				1.3	0.00	490,000	45,000	56,000	3,600	41,000	2,800				1.3	0.00	530,000	94,000	77,000	5,600	66,000	2,200			
" 2	3.15 P. M.	1.7	0.15	150,000	2,300	3,400	6,100	1,000	0				1.2	0.00	520,000	33,000	46,000	1,000	16,000	0				1.4	0.00	330,000	90,000	60,000	1,600	47,000	400			
" 3	11.00 A. M.	2.0	0.10	380,000	12,300	6,300	500	2,700	0				1.4	0.00	1,410,000	118,000	75,000	1,200	53,000	500				1.4	0.00	960,000	207,000	70,000	5,000	56,000	3,200			
" 3	3.15 P. M.	2.0	0.10	380,000	14,000	1,700	7,000	400	2,000	100	1,000		1.3	0.00	530,000	116,000	17,000	500	10,000	0	10,000	10,000		1.4	0.00	1,250,000	98,000	20,000	5,000	15,000	200	100,000	100	
" 5	3.15 P. M.	1.9	0.00	1,000,000	1,800	30,000	340	8,000	40				1.1	0.00	300,000		260,000	4,500	40,000	2,400				1.5		620,000		330,000	25,000	80,000	10,000			
" 7	11.00 A. M.	2.1	0.15	180,000	2,400	5,400	290	3,400	20				1.6	0.00	440,000	15,000	21,000	200	13,000	0				1.4	0.00	960,000	100,000	58,000	2,100	43,000	1,300			
" 7	3.15 P. M.	2.0	0.10	160,000	1,600	12,000	410	8,000	0	1,000	1,000		1.6	0.00	340,000	18,000	90,000	4,000	10,000	0	1,000	100		1.5	0.00	890,000	110,000	100,000	5,000	4,000	1,200	1,000	100	
" 8	11.00 A. M.			150,000	2,100		1,000	3,300	0	1,000	100	22.0			270,000	19,000	27,000	2,500	19,000	0	10,000	100	22.0			290,000	38,000		6,400	27,000	1,400	10,000	1,000	22.0
" 8	3.15 P. M.	1.8	0.10	100,000	13,000		1,500	4,000	0			21.0	1.4	0.00	200,000	10,000		11,500	12,000	2,000				1.4	0.00	360,000	94,000	230,000		11,000	0			
" 9	11.00 A. M.	2.3	0.25			2,600	490	2,000	20			21.0	1.7	0.10			11,000	600	8,000	0			21.0	1.6	0.00			33,000	500	24,000	0			20.5
" 9	3.15 P. M.	1.7	0.25			8,000	830	3,000	0	10,000	100		1.3	0.05			7,100	800	600	0	1,000	10		1.3	0.00			34,000	600	18,000	0	10,000	10,000	
" 10	11.00 A. M.	1.9	0.05			15,000	540	12,000	0	100	100	20.5	1.4	0.00			21,000	200	1,600	0	100	100	20.5	1.3	0.00			65,000	2,600	60,000	1,700	100,000	1,000	20.5
" 10	3.15 P. M.	2.2	0.10			2,800	170	1,400	0				1.6	0.00				100		0				1.5	0.00			24,000		18,000				
" 11	11.00 A. M.	1.9	0.05	110,000	2,000		410	6,000	0	1,000	1,000	21.0	1.5	0.00	270,000	12,000		100		100	100	100	21.0	1.5	0.00	850,000	83,000		2,500		1,300	100	100	21.5
August 10	11.00 A. M.	2.8	0.30	240,000	10,000	32,000	6,000	22,000	0				2.2	0.85	160,000	120,000	38,000	20,000	20,000	0				2.1	0.35	500,000	180,000	70,000	32,000	50,000	0			
" 10	3.15 P. M.			180,000	20,000	33,000	13,000	23,000	0	1,000	10				270,000	160,000	20,000	15,000	12,000	0	1,000	10				470,000	90,000	53,000	17,000	37,000	0	10,000	10	
" 11	11.00 A. M.	2.1	1.00		18,000	18,000	1,600	12,000	0	1,000	10		1.8	0.25	700,000	10,000	29,000	2,000	24,000	0	10,000	10		1.7	0.15	1,070,000		18,000	1,000	10,000	400	1,000	1,000	
" 11	3.15 P. M.	2.1	0.80	210,000	13,000	8,000	400	2,000	0				1.9	0.25	650,000	13,000	12,000	500	8,000	0				1.9	0.15	480,000	14,000	43,000	800	23,000	0			
" 12	11.00 A. M.	2.3	1.00			8,000	1,000	2,000	0				1.7	0.50			20,000	3,000	12,000	100				1.7	0.10			34,000	800	24,000	0			
" 12	3.15 P. M.	2.5	0.55			3,000	400	1,000	0	1,000	100		2.0	0.25			7,000	200	2,000	0	1,000	100		1.9	0.05			10,000	500	4,000	0	10,000	100	
" 13	11.00 A. M.													0.10											0.00									
" 13	3.15 P. M.	1.8	0.30	100,000	8,000	11,000	700	0	0				1.5		410,000	26,000	5,000	300	1,000	100				1.3		400,000	33,000	8,000	800	3,000	0			
" 14	11.00 A. M.	1.9	0.60	410,000		6,000	300	1,000	0			23.5	1.7	0.20	400,000	67,000	3,000	200	0	0			23.6	1.7	0.10	790,000	69,000	12,000	5,000	1,000	0			23.5
" 14	3.15 P. M.	2.1	0.50	370,000	127,000	3,000	400	1,000	0	1,000	100	23.5	1.5	0.15	660,000	47,000	3,000	1,100	2,000	0	1,000	100	23.0	3.3	1.25	530,000	44,000	6,000	600	1,000	0	1,000	100	23.0
" 15	11.00 A. M.	2.1	0.50	190,000	210,000	4,000	7,000	2,000	100	100	100		1.3	0.00	230,000	16,000	9,000	1,600	2,000	100	10,000	1,000		2.6	0.15	250,000	10,000	19,000	1,500	9,000	0	1,000	100	
" 17	3.15 P. M.	2.1	0.25	90,000	11,000	50,000	500	30,000	100			23.5	1.5	0.00	250,000	25,000	12,000	300	3,000	300			23.5	3.0	0.25	260,000	3,000	57,000	900	31,000	0			23.0
" 18	11.00 A. M.	2.4	0.45	190,000	2,000	4,000	200	4,000	0				2.0	0.00	410,000	15,000	18,000	2,000	12,000	0				3.6	0.55	990,000	8,000	95,000	4,600	55,000	0			
" 18	3.15 P. M.	2.1	0.35	170,000	3,000	50,000	1,500	50,000	0	100	10	23.0	1.7	0.00	160,000	8,000	70,000	800	30,000	0	1,000	1,000	22.5	3.3	0.60	360,000	9,000	51,000	400	37,000	0	1,000	100	22.5
" 19	11.00 A. M.	1.7	0.25	230,000	11,000	38,000	200	11,000	0	1,000	10		1.6	0.00	340,000	17,000	36,000	1,300	17,000	0	1,000	100		2.7	0.60	350,000	2,100	240,000	2,400	80,000	0	10,000	100	
" 19	3.15 P. M.	1.8	0.08	100,000	25,000	6,000	400	2,000	0			24.0	1.6	0.00	240,000	19,000	12,000	700	8,000	0			24.0	3.0	0.30	920,000	2,900	135,000	500	94,000	0			24.0
" 20	11.00 A. M.	2.4	0.70	130,000	80,000		2,000		0				2.1	0.00	340,000	3,200	61,000	1,200	23,000	0				3.8	0.80	550,000	3,200	110,000	1,200	52,000	100			
" 20	3.15 P. M.	2.3	0.55	210,000	19,000		5,000		0			23.5	2.1	0.15	320,000	2,000	35,000	800	14,000	0				3.9	1.20	610,000	3,400	80,000		30,000				23.0
" 21	11.00 A. M.	2.8	0.73	190,000	1,600	4,000	1,400	2,000	0				2.3	0.25	330,000	2,400	8,000	400	4,000	0				4.2	1.30	530,000	2,300	37,000	5,000	24,000	0			
" 21	3.15 P. M.	2.0	0.68	160,000	1,400	3,000	800	1,000	0	100	100	23.0	2.0	0.18	290,000	32,000	24,000	1,000	7,000	0	10,000	100	23.5	4.0	1.30	350,000	2,500	20,000	2,500	15,000	0	10	10	23.0
" 22	11.00 A. M.	1.2	0.00	140,000	5,000	11,000	1,500	4,000	200	100	100	21.0	1.0	0.00	610,000	25,000	10,000	2,100	4,000	1,300	10,000	10,000	22.0	2.2	0.00	850,000	17,500		400		0	100	1,000	22.0
" 24	11.00 A. M.	1.6	0.0	160,000	3,000	15,000	2,500	8,000	0				1.2	0.00	380,000	10,300	38,000	1,100	23,000	100				2.9	0.00	450,000	5,300	96,000	700	56,000	0			
" 24	3.15 P. M.	1.6	0.00	180,000	2,300	12,000	800	5,000	0	10,000	10	22.0	1.2	0.00	600,000	13,000	36,000	2,000	23,000	900	10,000	10,000	21.5	2.8	0.15	410,000	45,000	82,000	1,100	71,000	100	10,000	10	21.5
" 25	11.00 A. M.	1.7	0.25	300,000	2,900	21,000	5,700	7,000	0	1,000	100		1.7	0.05	560,000	4,500	90,000	1,200	33,000	0	10,000	100		3.0	0.85	700,000	4,600	75,000	1,000	41,000	0	100	10,000	
" 25	3.15 P. M.	1.6	0.10	800,000	7,400	36,000	900	6,000	0			21.0	1.2	0.00	330,000	10,500	73,000	3,800	23,000	2,400			21.0	3.0	0.50	650,000	3,900	110,000	800	75,000	100			21.0
" 26	11.00 A. M.	1.2	0.15	250,000	1,000	3,000	1,000	4,000	0				1.5	0.20	250,000	2,000	51,000	5,000	9,000	200				2.7	1.00	600,000	3,000	75,000	800	19,000	0			
" 26	3.15 P. M.	1.4	0.25	140,000	3,000	21,000	900	2,000	0	100	100	19.5	1.7	0.25	400,000	1,500	18,000	1,100	2,000	0	1,000	100	19.5	3.0	1.25	220,000	1,200	40,000	3,000	8,000	0	10,000	10	19.5
" 27	11.00 A. M.	2.1	0.50	340,000	2,200	44,000	2,500	5,000	0				2.0	0.25	310,000	2,600	25,000	1,200	7,000	100				3.6	1.10	350,000		80,000	1,000	23,000	100			
" 27	3.15 P. M.	2.1	0.18	800,000	1,000	20,000	1,500	4,000	0			20.0	1.9	0.03	170,000	4,400	30,000	3,000	12,000	500			20.0	3.7	0.75	510,000	4,000	110,000	4,500	41,000	500			20.0
" 28	11.00 A. M.	2.4	0.65			30,000	800	4,000	100				2.2	0.25			17,000	1,000	4,000	0				4.3	1.50			64,000	800	31,000	0			
" 28	3.15 P. M.	2.3	0.50			30,000	2,300	6,000	0	1,000	10	20.0	2.2	0.30			52,000	1,700	17,000	0	1,000	100	20.0	4.5	1.43			90,000	1,800	33,000	0	10,000	10	20.0
" 29	11.00 A. M.	2.0	0.35	180,000	1,300	30,000	700	11,000	0	1,000	100		2.3	0.33	220,000	2,800	75,000	1,600	15,000	0	1,000	100		4.4	1.50	500,000	1,700	150,000	800	90,000	0	10,000	10	
" 31	11.00 A. M.	1.4	0.00	280,000		44,000	6,800	17,000	2,100				1.3	0.00	260,000		170,000	5,700	32,000	1,700				2.8	0.00			275,000	2,400	98,000	400			
" 31	3.15 P. M.	1.4	0.00	240,000		41,000	3,800	17,000	1,400	100	10	21.0	1.3	0.00	100,000		45,000	14,000	13,000	1,200	10,000	100	21.0	2.8	0.03	260,000	13,500	208,000	1,000	63,000	200	1,000	1,000	21.0
September 1	11.00 A. M.	1.9	0.00	300,000	3,000	50,000	1,000	1,000	300				1.6	0.00	330,000	18,000	63,000	21,000	11,000	200				3.8	0.50	560,000	4,400		500		100			
" 1	3.15 P. M.	2.0	0.00	350,000		38,000	1,700	6,000	1,100			21.0	1.6	0.00	200,000	11,800	32,000	1,700	11,000	800			20.5	3.6	0.50		6,000	120,000	600	20,000	100			21.0
" 2	11.00 A. M.	2.2	0.35	250,000	2,600	61,000	600	9,000	100				1.9	0.03	280,000	3,200	54,000	800	7,000	200				4.1	1.15	330,000	4,500	213,000	500	60,000	0			
" 2	3.15 P. M.	2.3	0.00	280,000	4,500	25,000	1,600	4,000	0	1,000	10	21.0	1.8	0.00	250,000	8,400	93,000	2,100	18,000	300	1,000	100	21.0	4.3	0.75	350,000	1,900	245,000		50,000		10,000	100	21.0
" 3	11.00 A. M.	3.0	0.05	220,000	1,700	34,000	1,200	3,000	0				2.0	0.10		3,400	60,000	3,200	19,000	600

TABLE No. 3.

Results of Disinfection of Sprinkling Filter Effluents

1908		6′ BED. 1″ TO 3″ STONE											9′ BED 1″ TO 3″ STONE									
		PARTS PER MILLION		BACTERIA PER C. C.						B. COLI PER C. C			PARTS PER MILLION		BACTERIA PER C. C.						B. COLI PER C. C.		
				GELATINE		AGAR TOTAL		ACID FORMERS		LACTOSE BILE					GELATINE		AGAR TOTAL		ACID FORMERS		LACTOSE BILE		
DATE	HOUR	Available Chlorine	Residual Chlorine	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Temp. of Effluent C°.	Available Chlorine	Residual Chlorine	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Temp. of Effluent C°.
July 13	3.15 P. M.	0.8	0.00	300,000	120,000	120,000	30,000	30,000	10,000	------	------	23.0	0.9	0.00	260,000	60,000	120,000	70,000	60,000	50,000	------	------	22.5
" 14	11.00 A. M.	0.8	0.00	120,000	*	120,000	1,000	80,000	0	------	------	22.0	1.1	0.00	400,000	170,000	110,000	5,000	10,000	2,000	------	------	22.0
" 14	3.15 P. M.	0.8	0.00	250,000	160,000	70,000	8,000	40,000	4,000	10,000	1,000	------	1.1	0.00	260,000	150,000	50,000	2,000	10,000	0	10,000	100	------
" 15	11.00 A. M.	0.7	0.00	210,000	160,000	360,000	7,000	240,000	0	10,000	100	22.0	1.0	0.00	130,000	120,000	50,000	1,000	20,000	0	1,000	100	21.5
" 15	3.15 P. M.	1.0	0.00	190,000	160,000	420,000	25,000	280,000	13,000	------	------	------	1.2	0.00	140,000	80,000	60,000	2,000	60,000	2,000	------	------	------
" 16	11.00 A. M.	1.1	0.00	210,000	40,000	70,000	7,000	30,000	1,000	------	------	20.0	1.3	0.20	180,000	50,000	20,000	6,000	10,000	1,000	------	------	20.0
" 16	3.15 P. M.	1.0	0.00	850,000	140,000	50,000	3,000	20,000	1,000	1,000	100	------	1.3	0.20	170,000	21,000	80,000	5,000	10,000	0	1,000	100	------
" 17	11.00 A. M.	1.3	0.05	*	*	30,000	300	10,000	100	1,000	10	21.0	1.6	0.15	190,000	*	70,000	500	10,000	0	10,000	10	20.5
" 17	3.15 P. M.	1.4	0.05	240,000	29,000	60,000	300	20,000	100	------	------	------	1.5	0.15	100,000	*	2,000	400	1,000	0	------	------	------
" 18	11.00 A. M.	1.1	0.00	*	16,000	------	------	------	------	------	------	21.0	1.3	0.00	270,000	21,000	------	------	------	------	------	------	21.0
" 20	11.00 A. M.	1.5	0.00	440,000	240,000	50,000	2,100	40,000	400	------	------	21.0	1.8	0.00	620,000	30,000	32,000	500	21,000	0	------	------	21.5
" 20	3.15 P. M.	1.6	0.00	1,500,000	78,000	40,000	1,000	40,000	100	------	------	------	1.9	0.00	1,130,000	38,000	45,000	500	31,000	0	------	------	------
" 21	11.00 A. M.	1.5	0.00	740,000	142,000	70,000	2,400	30,000	1,200	1,000	100	22.0	1.7	0.00	1,750,000	13,000	16,000	400	12,000	0	1,000	10	22.0
" 21	3.15 P. M.	1.4	0.00	750,000	34,000	21,000	200	15,000	0	------	------	------	1.5	0.00	740,000	21,000	6,000	800	4,000	0	------	------	------
" 22	11.00 A. M.	1.4	0.00	420,000	48,000	47,000	2,000	39,000	300	------	------	23.0	1.5	0.00	390,000	28,000	25,000	800	19,000	0	------	------	23.0
" 22	3.15 P. M.	1.4	0.00	570,000	73,000	56,000	900	45,000	400	10,000	100	------	1.6	0.00	670,000	31,000	26,000	1,400	9,000	0	1,000	10	------
" 23	11.00 A. M.	1.4	0.00	410,000	61,000	35,000	2,000	34,000	1,600	------	------	22.5	1.6	0.00	350,000	30,000	10,000	600	4,000	0	------	------	22.5
" 23	3.15 P. M.	1.5	0.00	410,000	50,000	100,000	700	60,000	300	------	------	------	1.5	0.00	1,490,000	9,000	30,000	1,000	10,000	0	------	------	------
" 24	11.00 A. M.	1.5	0.00	380,000	20,000	32,000	2,500	12,000	0	------	------	22.5	1.9	0.10	160,000	9,000	13,000	500	6,000	0	------	------	22.6
" 24	3.15 P. M.	1.5	0.00	540,000	19,000	------	------	------	------	1,000	100	------	1.8	0.10	310,000	17,000	------	------	------	------	1,000	1,000	------
" 25	11.00 A. M.	1.1	0.00	310,000	56,000	18,000	3,200	9,000	1,600	1,000	1,000	23.5	1.4	0.00	400,000	13,000	6,000	1,300	4,000	200	10,000	100	23.5
" 27	11.00 A. M.	0.9	0.00	------	------	10,000	25,000	1,000	10,000	------	------	22.0	1.5	0.20	------	------	3,000	1,000	2,000	0	------	------	22.0
" 27	3.15 P. M.	1.1	0.00	------	------	------	------	------	------	1,000	100	------	1.5	0.20	------	------	------	------	------	------	1,000	10	------
" 28	11.00 A. M.	1.1	0.00	270,000	35,000	11,000	5,000	700	300	------	------	22.0	1.2	0.00	450,000	25,000	19,000	300	5,000	100	------	------	22.0
" 28	3.15 P. M.	1.3	0.00	280,000	33,000	11,000	1,300	6,000	600	1,000	1,000	------	1.4	0.00	620,000	50,000	3,000	300	1,000	100	1,000	10	------
" 29	11.00 A. M.	1.2	0.00	640,000	64,000	60,000	30,000	8,000	100	------	------	22.0	1.4	0.00	330,000	170,000	70,000	25,000	3,000	0	------	------	22.0
" 29	3.15 P. M.	1.3	0.00	950,000	73,000	16,000	15,000	7,000	1,600	------	------	------	1.4	0.00	710,000	24,000	50,000	5,000	2,000	0	------	------	------
" 30	11.00 A. M.	Settling basins cleaned.				Septic action apparent.																	
" 30	3.15 P. M.	1.0	0.00	220,000	25,000	130,000	11,000	21,000	900	10,000	1,000	22.0	1.2	0.00	120,000	22,000	120,000	400	7,000	200	1,000	100	22.5
" 31	11.00 A. M.	1.0	0.00	260,000	58,000	300,000	700	3,000	200	------	------	22.5	1.2	0.00	610,000	74,000	150,000	20,000	2,000	0	------	------	22.0
" 31	3.15 P. M.	1.0	0.00	370,000	59,000	70,000	7,000	2,000	0	1,000	1,000	------	1.2	0.00	340,000	1,700	30,000	2,600	3,000	0	100	100	------
August 1	11.00 A. M.	1.5	0.50	600,000	28,000	116,000	8,400	41,000	500	1,000	100	23.0	1.8	0.90	190,000	22,000	------	------	------	------	100	100	23.0
" 3	11.00 A. M.	2.1	0.25	------	------	8,000	1,100	8,000	0	10,000	10	23.5	2.3	0.75	------	------	30,000	2,000	4,000	0	100	100	23.0
" 3	3.15 P. M.	2.0	0.15	210,000	13,000	------	500	------	0	------	------	------	2.4	0.75	110,000	16,000	16,000	1,000	0	0	------	------	------
" 4	11.00 A. M.	0.9	0.00	580,000	133,000	15,000	10,000	11,000	0	------	------	23.5	1.1	0.00	450,000	39,000	50,000	3,400	1,000	100	------	------	23.0
" 4	3.15 P. M.	0.9	0.00	500,000	46,000	------	------	------	------	1,000	10	------	1.0	0.00	280,000	125,000	------	------	------	------	1,000	10	------
" 5	11.00 A. M.	1.2	0.00	350,000	34,000	17,000	900	12,000	0	------	------	24.0	1.4	0.05	210,000	20,000	9,000	800	5,000	100	------	------	23.0
" 6	11.00 A. M.	1.2	0.00	350,000	325,000	21,000	15,000	14,000	3,000	------	------	22.5	1.5	0.15	220,000	101,000	17,000	2,000	3,000	600	------	------	22.5
" 6	3.15 P. M.	1.1	0.00	310,000	31,000	38,000	3,000	18,000	1,500	1,000	1,000	------	1.4	0.15	310,000	17,000	10,000	900	4,000	100	1,000	1,000	------
" 7	11.00 A. M.	1.3	0.00	570,000	108,000	25,000	800	15,000	0	------	------	23.0	1.7	0.65	460,000	83,000	6,000	1,000	1,000	0	------	------	23.0
" 7	3.15 P. M.	1.0	0.00	1,040,000	37,000	16,000	700	4,000	600	1,000	100	------	1.6	0.90	620,000	52,000	3,000	2,100	1,000	600	1,000	100	------
" 8	11.00 A. M.	1.5	0.05	290,000	18,000	26,000	22,000	20,000	300	10,000	100	22.0	1.9	0.65	180,000	15,000	19,000	1,000	5,000	300	100	10	21.5
September 8	11.00 A. M.	1.6	0.00	170,000	40,000	110,000	7,000	62,000	3,000	------	------	20.5	1.1	0.00	700,000	47,000	76,000	20,000	23,000	6,000	------	------	20.0
" 8	3.15 P. M.	1.8	0.00	------	31,000	120,000	17,000	31,000	6,000	10,000	10	------	1.0	0.00	230,000	33,000	96,000	5,000	55,000	1,000	10,000	10,000	------
" 9	11.00 A. M.	2.6	0.35	320,000	74,000	45,000	2,000	26,000	0	1,000	1,000	20.0	1.4	0.00	270,000	26,000	55,000	1,200	27,000	300	1,000	100	19.5
" 9	3.15 P. M.	2.7	0.50	170,000	20,000	14,000	800	5,000	0	------	------	------	1.3	0.00	190,000	23,000	15,000	900	3,000	0	------	------	------
" 10	11.00 A. M.	2.4	0.15	840,000	42,000	87,000	2,500	68,000	800	------	------	20.0	1.5	0.00	170,000	44,000	25,000	1,400	16,000	800	------	------	19.5
" 10	3.15 P. M.	2.6	0.15	240,000	31,000	70,000	900	42,000	200	------	------	------	1.6	0.00	160,000	8,000	36,000	1,400	22,000	300	------	------	------
" 11	11.00 A. M.	2.6	0.30	640,000	55,000	56,000	600	41,000	0	------	------	20.0	1.6	0.00	520,000	36,000	27,000	600	14,000	200	------	------	20.0
" 11	3.15 P. M.	2.5	0.35	410,000	22,000	29,000	1,200	12,000	0	10,000	100	------	1.6	0.00	430,000	29,000	10,000	300	5,000	200	10,000	100	------
" 14	3.15 P. M.	2.2	0.00	------	------	53,000	------	10,000	200	------	------	21.0	1.1	0.00	------	------	------	------	3,100	100	------	------	20.5
" 15	11.00 A. M.	2.7	0.15	------	------	135,000	1,600	100,000	0	100,000	10	------	1.7	0.00	------	------	67,000	900	45,000	400	10,000	100	------
" 15	3.15 P. M.	2.7	0.05	------	------	115,000	5,200	24,000	2,000	10,000	1,000	19.0	1.5	0.00	------	------	60,000	1,200	25,000	400	1,000	1,000	19.0
" 16	11.00 A. M.	2.5	0.35	600,000	26,000	128,000	2,000	60,000	0	------	------	------	1.3	0.00	340,000	72,000	57,000	2,900	35,000	600	------	------	------
" 16	3.15 P. M.	2.7	0.00	380,000	220,000	84,000	78,000	22,000	37,000	10,000	10,000	17.5	1.5	0.00	170,000	25,000	89,000	2,600	30,000	900	1,000	100	17.5
" 18	11.00 A. M.	2.8	0.60	270,000	36,000	85,000	500	52,000	200	------	------	18.5	1.8	0.03	190,000	19,000	25,000	600	18,000	300	------	------	18.5
" 19	11.00 A. M.	2.3	0.03	650,000	103,000	83,000	24,000	60,000	14,000	100	10	------	1.4	0.00	220,000	35,000	30,000	1,000	19,000	400	100	10	------
" 22	11.00 A. M.	4.2	1.25	2,080,000	8,000	------	1,300	37,000	0	------	------	------	2.2	0.25	870,000	9,000	------	2,000	28,000	200	------	------	------
" 22	3.15 P. M.	4.1	1.65	250,000	21,000	20,000	300	17,000	100	10,000	100	------	2.3	0.00	280,000	22,000	30,000	900	12,000	100	10,000	10	------
" 23	11.00 A. M.	3.8	1.25	970,000	18,000	64,000	600	34,000	0	10,000	10	------	2.4	0.15	210,000	42,000	20,000	800	12,000	400	1,000	1,000	------
" 23	3.15 P. M.	3.4	1.25	360,000	15,000	26,000	500	18,000	0	------	------	20.0	2.1	0.25	180,000	11,000	9,000	7,400	5,000	100	------	------	20.0
" 24	3.15 P. M.	3.6	1.25	600,000	2,000	62,000	600	46,000	200	------	------	20.0	2.0	0.15	310,000	31,000	13,000	1,000	6,000	600	------	------	20.0
" 26	11.00 A. M.	4.2	2.10	500,000	13,000	55,000	1,700	34,000	0	------	------	------	2.3	1.15	320,000	32,000	8,000	1,100	4,000	100	------	------	------
" 25	3.15 P. M.	4.2	1.50	880,000	15,000	90,000	700	18,000	0	10,000	10	20.0	2.5	0.40	180,000	10,000	------	1,600	3,000	300	10,000	100	20.0
" 26	11.00 A. M.	4.4	1.85	360,000	22,000	27,000	500	14,000	0	1,000	10	20.0	2.8	0.65	220,000	19,000	11,000	1,000	5,000	200	1,000	100	20.5
" 28	11.00 A. M.	4.1	1.50	190,000	24,000	29,000	600	15,000	0	------	------	------	2.6	0.35	170,000	18,000	29,000	3,500	6,000	200	------	------	------
" 28	3.15 P. M.	4.1	1.50	64,000	6,000	44,000	700	16,000	0	------	------	21.0	2.5	0.28	290,000	28,000	16,000	1,000	5,000	0	------	------	21.0
" 29	11.00 A. M.	2.8	1.05	400,000	23,000	100,000	500	7,000	100	1,000	100	------	1.9	0.50	190,000	14,000	43,000	------	12,000	200	1,000	100	------
" 29	3.15 P. M.	3.0	1.35	410,000	22,000	63,000	------	17,000	200	------	------	17.0	2.0	0.55	240,000	18,000	16,000	1,700	5,000	0	------	------	17.0
" 30	11.00 A. M.	2.7	1.30	180,000	25,000	68,000	18,000	37,000	200	------	------	------	1.9	0.50	240,000	14,000	78,000	20,000	26,000	1,200	------	------	------
" 30	3.15 P. M.	2.7	1.30	260,000	9,000	------	1,400	22,000	200	100,000	10	16.5	1.9	0.50	150,000	17,000	99,000	------	22,000	700	1,000	100	16.5
October 1	11.00 A. M.	2.6	0.60	530,000	87,000	94,000	2,700	40,000	900	------	------	------	1.9	0.25	220,000	65,000	76,000	2,500	29,000	400	------	------	------
" 1	3.15 P. M.	2.5	0.60	200,000	20,000	51,000	19,000	17,000	100	------	------	18.0	1.7	0.25	100,000	16,000	60,000	1,400	16,000	100	------	------	17.5
" 2	11.00 A. M.	2.5	0.75	340,000	45,000	85,000	2,900	35,000	800	------	------	------	1.7	0.25	610,000	10,000	72,000	2,200	13,000	300	------	------	------
" 2	3.15 P. M.	2.4	0.60	150,000	23,000	64,000	2,900	27,000	200	10,000	10	18.0	1.5	0.00	110,000	55,000	42,000	2,800	4,000	700	1,000	100	17.5
" 3	11.00 A. M.	2.5	0.60	1,070,000	70,000	52,000	2,800	33,000	300	100	100	18.0	1.7	0.05	340,000	87,000	87,000	2,400	20,000	500	100,000	1,000	17.5

*Contaminated.

1908 DATE	HOUR	6′ BED. 1″ TO 3″ STONE: PARTS PER MILLION Available Chlorine	PARTS PER MILLION Residual Chlorine	BACTERIA PER C. C. GELATINE Initial	GELATINE Final	AGAR TOTAL Initial	AGAR TOTAL Final	ACID FORMERS Initial	ACID FORMERS Final	B. COLI PER C. C. LACTOSE BILE Initial	LACTOSE BILE Final	Temp. of Effluent C°.	9′ BED 1″ TO 3″ STONE: PARTS PER MILLION Available Chlorine	PARTS PER MILLION Residual Chlorine	BACTERIA PER C. C. GELATINE Initial	GELATINE Final	AGAR TOTAL Initial	AGAR TOTAL Final	ACID FORMERS Initial	ACID FORMERS Final	B. COLI PER C. C. LACTOSE BILE Initial	LACTOSE BILE Final	Temp. of Effluent C°.
July 13	3.15 P. M.	0.8	0.00	300,000	120,000	120,000	30,000	30,000	10,000	------	------	23.0	0.9	0.00	260,000	60,000	120,000	70,000	60,000	50,000	------	------	22.5
" 14	11.00 A. M.	0.8	0.00	120,000	*	120,000	1,000	80,000	0	------	------	22.0	1.1	0.00	400,000	170,000	110,000	5,000	10,000	2,000	------	------	22.0
" 14	3.15 P. M.	0.8	0.00	250,000	160,000	70,000	8,000	40,000	4,000	10,000	1,000	------	1.1	0.00	260,000	150,000	50,000	2,000	10,000	0	10,000	100	------
" 15	11.00 A. M.	0.7	0.00	210,000	160,000	360,000	7,000	240,000	0	10,000	100	22.0	1.0	0.00	130,000	120,000	50,000	1,000	20,000	0	1,000	100	21.5
" 15	3.15 P. M.	1.0	0.00	190,000	160,000	420,000	25,000	280,000	13,000	------	------	------	1.2	0.00	140,000	80,000	60,000	2,000	60,000	2,000	------	------	------
" 16	11.00 A. M.	1.1	0.00	210,000	40,000	70,000	7,000	30,000	1,000	------	------	20.0	1.3	0.20	180,000	50,000	20,000	6,000	10,000	1,000	------	------	20.0
" 16	3.15 P. M.	1.0	0.00	850,000	140,000	50,000	3,000	20,000	1,000	1,000	100	------	1.3	0.20	170,000	21,000	80,000	5,000	10,000	0	1,000	100	------
" 17	11.00 A. M.	1.3	0.05	*	*	30,000	300	10,000	100	1,000	10	21.0	1.6	0.15	190,000	*	70,000	500	10,000	0	10,000	10	20.5
" 17	3.15 P. M.	1.4	0.05	240,000	29,000	60,000	300	20,000	100	------	------	------	1.5	0.15	100,000	*	2,000	400	1,000	0	------	------	------
" 18	11.00 A. M.	1.1	0.00	*	16,000	------	------	------	------	------	------	21.0	1.3	0.00	270,000	21,000	------	------	------	------	------	------	21.0
" 20	11.00 A. M.	1.5	0.00	440,000	240,000	50,000	2,100	40,000	400	------	------	21.0	1.8	0.00	620,000	30,000	32,000	500	21,000	0	------	------	21.5
" 20	3.15 P. M.	1.6	0.00	1,500,000	78,000	40,000	1,000	40,000	100	------	------	------	1.9	0.00	1,130,000	38,000	45,000	500	31,000	0	------	------	------
" 21	11.00 A. M.	1.5	0.00	740,000	142,000	70,000	2,400	30,000	1,200	1,000	100	22.0	1.7	0.00	1,750,000	13,000	16,000	400	12,000	0	1,000	10	22.0
" 21	3.15 P. M.	1.4	0.00	750,000	34,000	21,000	200	15,000	0	------	------	------	1.5	0.00	740,000	21,000	6,000	800	4,000	0	------	------	------
" 22	11.00 A. M.	1.4	0.00	420,000	48,000	47,000	2,000	39,000	300	------	------	23.0	1.5	0.00	390,000	28,000	25,000	800	19,000	0	------	------	23.0
" 22	3.15 P. M.	1.4	0.00	570,000	73,000	56,000	900	45,000	400	10,000	100	------	1.6	0.00	670,000	31,000	26,000	1,400	9,000	0	1,000	10	------
" 23	11.00 A. M.	1.4	0.00	410,000	61,000	35,000	2,000	34,000	1,600	------	------	22.5	1.6	0.00	350,000	30,000	10,000	600	4,000	0	------	------	22.5
" 23	3.15 P. M.	1.5	0.00	410,000	50,000	100,000	700	60,000	300	------	------	------	1.5	0.00	1,490,000	9,000	30,000	1,000	10,000	0	------	------	------
" 24	11.00 A. M.	1.5	0.00	380,000	20,000	32,000	2,500	12,000	0	------	------	22.5	1.9	0.10	160,000	9,000	13,000	500	6,000	0	------	------	22.5
" 24	3.15 P. M.	1.5	0.00	540,000	19,000	------	------	------	------	1,000	100	------	1.8	0.10	310,000	17,000	------	------	------	------	1,000	1,000	------
" 25	11.00 A. M.	1.1	0.00	310,000	56,000	18,000	3,200	9,000	1,600	1,000	1,000	23.5	1.4	0.00	400,000	13,000	6,000	1,300	4,000	200	10,000	100	23.5
" 27	11.00 A. M.	0.9	0.00	------	------	10,000	25,000	1,000	10,000	------	------	22.0	1.5	0.20	------	------	3,000	1,000	2,000	0	------	------	22.0
" 27	3.15 P. M.	1.1	0.00	------	------	------	------	------	------	1,000	100	------	1.5	0.20	------	------	------	------	------	------	1,000	10	------
" 28	11.00 A. M.	1.1	0.00	270,000	35,000	11,000	5,000	700	300	------	------	22.0	1.2	0.00	450,000	25,000	19,000	300	5,000	100	------	------	22.0
" 28	3.15 P. M.	1.3	0.00	280,000	33,000	11,000	1,300	6,000	600	1,000	1,000	------	1.4	0.00	620,000	50,000	3,000	300	1,000	100	1,000	10	------
" 29	11.00 A. M.	1.2	0.00	640,000	64,000	60,000	30,000	8,000	100	------	------	22.0	1.4	0.00	330,000	170,000	70,000	25,000	3,000	0	------	------	22.0
" 29	3.15 P. M.	1.3	0.00	950,000	73,000	16,000	15,000	7,000	1,600	------	------	------	1.4	0.00	710,000	24,000	50,000	5,000	2,000	0	------	------	------
" 30	11.00 A. M.	Settling basins cleaned.				Septic action apparent.																	
" 30	3.15 P. M.	1.0	0.00	220,000	25,000	130,000	11,000	21,000	900	10,000	1,000	22.0	1.2	0.00	120,000	22,000	120,000	400	7,000	200	1,000	100	22.5
" 31	11.00 A. M.	1.0	0.00	260,000	58,000	300,000	700	3,000	200	------	------	22.5	1.2	0.00	610,000	74,000	150,000	20,000	2,000	0	------	------	22.0
" 31	3.15 P. M.	1.0	0.00	370,000	59,000	70,000	7,000	2,000	0	1,000	1,000	------	1.2	0.00	340,000	1,700	30,000	2,600	3,000	0	100	100	------
August 1	11.00 A. M.	1.5	0.50	600,000	28,000	116,000	8,400	41,000	500	1,000	100	23.0	1.8	0.90	190,000	22,000	------	------	------	------	100	100	23.0
" 3	11.00 A. M.	2.1	0.25	------	------	8,000	1,100	8,000	0	10,000	10	23.5	2.3	0.75	------	------	30,000	2,000	4,000	0	100	100	23.0
" 3	3.15 P. M.	2.0	0.15	210,000	13,000	------	500	------	0	------	------	------	2.4	0.75	110,000	16,000	16,000	1,000	0	0	------	------	------
" 4	11.00 A. M.	0.9	0.00	580,000	133,000	15,000	10,000	11,000	0	------	------	23.5	1.1	0.00	450,000	39,000	50,000	3,400	1,000	100	------	------	23.0
" 4	3.15 P. M.	0.9	0.00	500,000	46,000	------	------	------	------	1,000	10	------	1.0	0.00	280,000	125,000	------	------	------	------	1,000	10	------
" 5	11.00 A. M.	1.2	0.00	350,000	34,000	17,000	900	12,000	0	------	------	24.0	1.4	0.05	210,000	20,000	9,000	800	5,000	100	------	------	23.0
" 6	11.00 A. M.	1.2	0.00	350,000	325,000	21,000	15,000	14,000	3,000	------	------	22.5	1.5	0.15	220,000	101,000	17,000	2,000	3,000	600	------	------	22.5
" 6	3.15 P. M.	1.1	0.00	310,000	31,000	38,000	3,000	18,000	1,500	1,000	1,000	------	1.4	0.15	310,000	17,000	10,000	900	4,000	100	1,000	1,000	------
" 7	11.00 A. M.	1.3	0.00	570,000	108,000	25,000	800	15,000	0	------	------	23.0	1.7	0.65	460,000	83,000	6,000	1,000	1,000	0	------	------	23.0
" 7	3.15 P. M.	1.0	0.00	1,040,000	37,000	16,000	700	4,000	600	1,000	100	------	1.6	0.00	620,000	52,000	3,000	2,100	1,000	600	1,000	100	------
" 8	11.00 A. M.	1.5	0.05	290,000	18,000	26,000	22,000	20,000	300	10,000	100	22.0	1.9	0.65	180,000	15,000	19,000	1,000	5,000	300	100	10	21.5
September 8	11.00 A. M.	1.6	0.00	170,000	40,000	110,000	7,000	62,000	3,000	------	------	20.5	1.1	0.00	700,000	47,000	76,000	20,000	23,000	6,000	------	------	20.0
" 8	3.15 P. M.	1.8	0.00	------	31,000	120,000	17,000	31,000	6,000	10,000	10	------	1.0	0.00	230,000	33,000	96,000	5,000	55,000	1,000	10,000	10,000	------
" 9	11.00 A. M.	2.6	0.35	320,000	74,000	45,000	2,000	26,000	0	1,000	1,000	20.0	1.4	0.00	270,000	26,000	55,000	1,200	27,000	300	1,000	100	19.5
" 9	3.15 P. M.	2.7	0.50	170,000	20,000	14,000	800	5,000	0	------	------	------	1.3	0.00	190,000	23,000	15,000	900	3,000	0	------	------	------
" 10	11.00 A. M.	2.4	0.15	840,000	42,000	87,000	2,500	68,000	800	------	------	20.0	1.5	0.00	170,000	44,000	25,000	1,400	16,000	800	------	------	19.5
" 10	3.15 P. M.	2.6	0.15	240,000	31,000	70,000	900	42,000	200	------	------	------	1.6	0.00	160,000	8,000	36,000	1,400	22,000	300	------	------	------
" 11	11.00 A. M.	2.6	0.30	640,000	55,000	56,000	600	41,000	0	------	------	20.0	1.6	0.00	520,000	36,000	27,000	600	14,000	200	------	------	20.0
" 11	3.15 P. M.	2.5	0.35	410,000	22,000	29,000	1,200	12,000	0	10,000	100	------	1.6	0.00	430,000	29,000	10,000	300	5,000	200	10,000	100	------
" 14	3.15 P. M.	2.2	0.00	------	------	53,000	------	10,000	200	------	------	21.0	1.1	0.00	------	------	------	3,100	3,000	100	------	------	20.5
" 15	11.00 A. M.	2.7	0.15	------	------	135,000	1,600	100,000	0	100,000	10	------	1.7	0.00	------	------	67,000	900	45,000	400	10,000	100	------
" 15	3.15 P. M.	2.7	0.05	------	------	115,000	5,200	24,000	2,000	10,000	1,000	19.0	1.5	0.00	------	------	60,000	1,200	25,000	400	1,000	1,000	19.0
" 16	11.00 A. M.	2.5	0.35	600,000	26,000	128,000	2,000	60,000	0	------	------	------	1.3	0.00	340,000	72,000	57,000	2,900	35,000	600	------	------	------
" 16	3.15 P. M.	2.7	0.00	380,000	220,000	84,000	78,000	22,000	37,000	10,000	10,000	17.5	1.5	0.00	170,000	25,000	89,000	2,600	30,000	900	1,000	100	17.5
" 18	11.00 A. M.	2.8	0.60	270,000	36,000	85,000	500	52,000	200	------	------	18.5	1.8	0.03	190,000	19,000	25,000	600	18,000	300	------	------	18.5
" 19	11.00 A. M.	2.3	0.03	630,000	103,000	83,000	24,000	60,000	14,000	100	10	------	1.4	0.00	220,000	35,000	30,000	1,000	19,000	400	100	10	------
" 22	11.00 A. M.	4.2	1.25	2,080,000	8,000	------	1,300	37,000	0	------	------	------	2.2	0.25	870,000	9,000	------	2,000	28,000	200	------	------	------
" 22	3.15 P. M.	4.1	1.65	250,000	21,000	20,000	300	17,000	100	10,000	100	------	2.3	0.00	280,000	22,000	30,000	900	12,000	100	10,000	10	------
" 23	11.00 A. M.	3.8	1.25	970,000	18,000	64,000	600	34,000	0	10,000	10	------	2.4	0.15	210,000	42,000	20,000	800	12,000	400	1,000	1,000	------
" 23	3.15 P. M.	3.4	1.25	360,000	15,000	26,000	500	18,000	0	------	------	20.0	2.1	0.25	180,000	11,000	9,000	7,400	5,000	100	------	------	20.0
" 24	3.15 P. M.	3.6	1.25	600,000	2,000	62,000	600	46,000	200	------	------	20.0	2.0	0.15	310,000	31,000	13,000	1,000	6,000	600	------	------	20.0
" 25	11.00 A. M.	4.2	2.10	500,000	13,000	55,000	1,700	34,000	0	------	------	------	2.3	1.15	320,000	32,000	8,000	1,100	4,000	100	------	------	------
" 25	3.15 P. M.	4.2	1.50	880,000	15,000	90,000	700	18,000	0	10,000	10	20.0	2.5	0.40	180,000	10,000	------	1,600	3,000	300	10,000	100	20.0
" 26	11.00 A. M.	1.4	1.85	360,000	22,000	27,000	500	14,000	0	1,000	10	20.0	2.8	0.65	220,000	19,000	11,000	1,000	5,000	200	1,000	100	20.5
" 28	11.00 A. M.	4.1	1.50	190,000	24,000	29,000	600	15,000	0	------	------	------	2.6	0.35	170,000	18,000	29,000	3,500	6,000	200	------	------	------
" 28	3.15 P. M.	4.1	1.50	64,000	6,000	44,000	700	16,000	0	------	------	21.0	2.5	0.28	290,000	28,000	16,000	1,000	5,000	0	------	------	21.0
" 29	11.00 A. M.	2.8	1.05	400,000	23,000	100,000	500	7,000	100	1,000	100	------	1.9	0.50	190,000	14,000	43,000	------	12,000	200	1,000	100	------
" 29	3.15 P. M.	3.0	1.35	410,000	22,000	63,000	------	17,000	200	------	------	17.0	2.0	0.55	240,000	18,000	16,000	1,700	5,000	0	------	------	17.0
" 30	11.00 A. M.	2.7	1.30	180,000	25,000	68,000	18,000	37,000	200	------	------	------	1.9	0.50	240,000	14,000	78,000	20,000	26,000	1,200	------	------	------
" 30	3.15 P. M.	2.7	1.30	260,000	9,000	------	1,400	22,000	200	100,000	10	16.5	1.9	0.50	150,000	17,000	99,000	------	22,000	700	1,000	100	16.5
October 1	11.00 A. M.	2.6	0.60	530,000	87,000	94,000	2,700	40,000	900	------	------	------	1.9	0.25	220,000	65,000	76,000	2,500	29,000	400	------	------	------
" 1	3.15 P. M.	2.5	0.60	200,000	29,000	51,000	19,000	17,000	100	------	------	18.0	1.7	0.25	100,000	16,000	60,000	1,400	16,000	100	------	------	17.5
" 2	11.00 A. M.	2.5	0.75	340,000	45,000	85,000	2,900	35,000	800	------	------	------	1.7	0.25	610,000	10,000	72,000	2,200	13,000	300	------	------	------
" 2	3.15 P. M.	2.4	0.60	150,000	23,000	64,000	2,900	27,000	200	10,000	10	18.0	1.5	0.00	110,000	55,000	42,000	2,800	4,000	700	1,000	100	17.5
" 3	11.00 A. M.	2.5	0.60	1,070,000	70,000	52,000	2,800	33,000	300	100	100	18.0	1.7	0.05	340,000	87,000	87,000	2,400	20,000	500	100,000	1,000	17.5

*Contaminated.

REPORT

OF THE

Topographical Survey Commission

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE

FOR THE

FISCAL YEAR ENDING DECEMBER 31, 1911

BALTIMORE
MEYER & THALHEIMER
PUBLIC PRINTER

1912

MAYOR'S OFFICE,

BALTIMORE, MD., January 2, 1912

To the Honorable, the Mayor and City Council of Baltimore.

GENTLEMEN—The Topographical Survey Commission respectfully begs to submit the following satisfactory report of its Chief Engineer.

Very respectfully,

JAMES H. PRESTON, Mayor
JAMES F. THRIFT, Comptroller,
RICHARD GWINN, Register,
Topographical Survey Commission

REPORT

OF THE

CHIEF ENGINEER

OF THE

TOPOGRAPHICAL SURVEY COMMISSION

FOR THE YEAR 1911

CITY OF BALTIMORE TOPOGRAPHICAL SURVEY

BALTIMORE, MD., December 31, 1911.

To the

HON. JAMES H. PRESTON, *Mayor,*
HON. JAMES F. THRIFT, *Comptroller,*
HON. RICHARD GWINN, *Register,*
Topographical Survey Commission.

GENTLEMEN—In giving a resume of what has been accomplished during the past year by this Department, I feel that the city has excellent reason to feel gratified. Not only has the routine work progressed in a highly pleasing manner, but there has also been a marked stimulus in all matters pertaining to the extension and promulgation of the Street Plan, more especially in relation to that broader phase of the subject having to do with the creation of liberal and comprehensive civic improvements. This latter field covered many important projects, both within the so-called Old City and in the Annex, and they will be discussed further on in the report under their various titles.

Undoubtedly, we all realize that while our city possesses many points of merit, both in an attractive sense as well as in a commercial way, we have, on the other hand, a great deal to accomplish in the way of correcting many obvious errors in our civic construction; and, although the Department has never lost sight for a moment of its obligations and duty in extending the street system along proper lines in the growing sections of the city, it has, in conjunction with this work, also been able to devote some attention to

suggesting certain changes and improvements in the more congested portions, as well as planning for the better development of certain areas at present inaccessible, if not isolated, and it is thought fitting to mention these projects in this report.

During the year 1911 the Department was particularly occupied by the supervision of the thoroughfares improved by the State Roads Commission. This work was begun several years ago; the intention being to have one city department look after all affairs in any way connected with the work, thereby avoiding much confusion.

So far one road has been entirely completed (the Falls road) and two others (the Harford road and Garrison avenue) will, should no extraordinary mishap occur, be completed by the early spring. A great many difficulties have been met with in these cases, which were, of course, naturally to be expected. On both of the latter roads it was found that after official grades had been established that a re-establishment would often aid matters materially; more especially from the property-owner's point of view. These changes very naturally caused a good deal of confusion for the time being by upsetting the intended mode of procedure, but in by far the larger number of cases the benefits derived justified the action.

Garrison Avenue.

Garrison avenue is at present completed throughout its length, but its connection northwesterly into Liberty Heights avenue, and the latter avenue to the western city boundary, remains unimproved. This is due to legal complications involved in the sewerage connections; and so soon as the city arrives at some agreement with regard to this drainage the road can then be quickly completed. It is highly desirable that a concerted move be made very soon with this end in view.

Harford Road.

Harford road is completed, in so far as the old road proper is concerned, but the new cut-off, together with the bridge, will not be finished until the spring. The unfinished portion is, however, in an advanced state of progress, and it awaits only for the green fill to be settled by the winter wetness before the paving can be laid.

Frederick Road.

It is proposed, during the year 1912, to make an excellent thoroughfare out of Frederick road; the title to the road having already been purchased by the State Roads Commission. It is very much to be regretted that no widening can take place, but the expense of such a task would be practically prohibitive, and actually impossible in places, due to the many abutting cemeteries. However, the proposed changes in the grades will be of marked benefit to travel, and the new crossing at Gwynn's Falls will aid greatly both the alinement and the grade. Condemnation proceedings are now well under way to obtain the additional property necessary for this new crossing, and with a well-designed, twin-arch, skew concrete bridge spanning both the Falls and the Western Maryland Railroad this locality will present a highly satisfactory appearance.

Reisterstown Road.

Another important road, in connection with the fund allotted to the city by the State Roads Commission, is the Reisterstown road; the city portion of this road having also been purchased by the Commission. Plats have just recently been completed for the widening of this old turnpike, and no doubt proceedings will be begun to carry out the plan early in the new year.

This improvement is a subject that has been under discussion for a long time and a great deal of study has been given to it by this Department. The final plans submitted call for a width of ninety-five feet, from Fulton avenue to Liberty Heights avenue; from Liberty Heights avenue to the junction at the Pimlico Gate to Druid Hill Park the width is to be ninety-one feet; and from the Gate to the northern city boundary the width is to be eighty feet. While these dimensions are not at all broad in comparison with the modern trend in the designing of main arteries of travel, they are about the best that can be obtained under existing conditions, and when completed this road should present a very attractive appearance and sufficient space will be afforded for traffic.

The Reisterstown road was among those originally chosen by the State Roads Commission for betterment, and if there should be sufficient funds remaining after the construction of the Frederick road, this road will undoubtedly be taken up. Should, however, the funds not be sufficient it is highly important that the road be improved, either out of the Annex Loan or by some special provision.

In connection with the widening of the Reisterstown road, there is planned a circle at the present awkward junction at the Pimlico Gate. The plans for this have been carefully gone into and they have received the hearty approval of the Board of Park Commissioners. The details of it were discussed at some length in one of the Department's former reports, so that it is only necessary to mention here its importance and the need of some definite action to be taken regarding its creation. Especially would it serve a highly useful and ornate purpose in relation to the Green Spring Parkway, concerning which mention will be made later on in this report.

Liberty Heights Avenue.

Liberty Heights avenue is still another road that was chosen by the State Roads Commission, but it is very evident now that the fund will not be enough to provide for this avenue, and an effort, too, should be made to obtain the money needed to improve this highway, the details of which were discussed in a former report of the Department.

The Fallsway.

Aside from the superintendence of the State Roads Commission's construction within the city, the work which has required the greater amount of the Department's time was that of the Jones Falls project. The Commission on City Plan, soon after its creation, requested the Topographical Survey to make an extensive plat of all the property bordering the Falls for at least one block on each side. This necessitated increasing our force by eight men, who were kept constantly in the field mapping the area. By the latter part of May all of the plats were completed and turned over to the Commission as a basis for study of the proposed thoroughfare. Soon afterwards, by a resolution of the Commission, the Department was asked to submit a comprehensive plan for a highway over the Falls, extending from Baltimore street northerly, to connect with Guilford avenue.

The suggestions relative to the route proposed by the Department were embodied in a detailed report, accompanied by a plat, which was not, however, adopted in its entirety by the Commission; though some of the more important suggestions were accepted, and the preliminary plat and description to accompany the ordinance for condemnation proceedings is now well under way. The Survey's plan for the treatment of the Fallsway, which is to be the official designation for the thoroughfare, recommended the same scheme as that which has been adopted from Baltimore street to

Eager street; but from Eager street northerly quite a departure from that which has been adopted was suggested, and inasmuch as the alternate plan would seem to possess some points of merit, I deem it well to incorporate the whole of the report here; it is as follows:

REPORT ON IMPROVEMENT OF JONES FALLS,

By Joseph W. Shirley,
Chief Engineer, Topographical Survey Commission.

Baltimore, Md., August 30, 1911.

Mr. Josias Pennington,
Chairman, Commission on City Plan,
Baltimore, Md.

Dear Sir—In conformity with a resolution adopted by your Commission on May 31, 1911, I beg to submit herewith plats showing a suggested line for the proposed Fallsway along the route of Jones Falls, together with some discussion pertaining to its treatment.

Under the general scheme, to obtain a low-grade thoroughfare from the waterfront to Union Station and the Bolton Freight Yards, several methods may be employed for a portion of the way. But of the southern section, as far north as Eager street, there seems little reason for an argument of but one route—that of following closely the bed of the Falls, though even here at least one problem is encountered—that of the selection of the location of the beginning. But, as the plans for the laying of the sewers in the bed of the Falls are at present limited to Baltimore street, no reference will be made in the following remarks to any other place of starting. Indeed, this location seems an admirable choice in many important ways, for just west of this initial point is a broad plaza of easy grade (Market Space) which would form a most convenient distributing center for the traffic that would assemble here; and from the natural conditions embraced in this neighborhood, there is little ground to anticipate any marked congestion at this terminus.

For, from the arrangement of the streets about this location, there is every reason to expect that most of the travel from the waterfront and southwest will seek the most direct connection with the Fallsway by using Market Space and its extension—Harrison street; while

the traffic from the west and north central business section will use Lexington street for the most part, with Fayette street as a supplementary feeder. Baltimore street will afford the principal connection easterly, but the junction at Lexington street will, in all probability, act as the real division point for the collection and distribution of traffic.

It would seem, then, that a width of a standard city street—sixty-six feet—should be ample for this section, more especially as the plans do not contemplate any car tracks south of Lexington street; and in adopting this width, the very desirable factor is obtained of not requiring any of the adjacent property along the line of the Falls.

While the question of the exact boundaries of the Falls has not as yet been decided, there is little doubt that a width of sixty-six feet may be obtained, and, in some places, an excess, which it is proposed to give to the sidewalks, making the roadway forty feet and two sidewalks varying from thirteen feet each upward. This width of roadway, as is the case throughout this discussion, is based on the unit of eight feet for the width of vehicles and allowance of passage, which is according to the most approved standard.

For sake of comparison it may be well to mention that this portion of the street—as far north as Lexington street—would, when completed, have the same width and general appearance as Calvert street just south of Baltimore street.

From Lexington street northerly it is expected that the accretions to the flow of traffic will be of considerable amount and, fortunately, the width of the Falls along this portion is greater, so that it is possible, without acquiring additional property, to obtain a width of certainly seventy-five feet between building lines; and, it is proposed, for this space to have an uniform width of fifty feet for the roadway and two sidewalks varying from twelve and one-half feet upward.

This extra width of roadway will permit, if future conditions demand it, of two lines of street car tracks in the center and allowance on each side for the passage of teams. It is planned to project this width as far as Eager street; for comparison, this section of the Fallsway would have the general appearance of Charles street, from Fayette street to Lombard street.

Comparison of Routes.

At this junction (Eager street) conditions will permit of several alternate routes. In this discussion, however, reference will be made to only what seems the two more practical methods of treatment.

The plan recommended on the accompanying plat is, briefly, from this junction to digress from the bed of the Falls and leave Eager street by an easy curved connection to a street running northerly, the west side of which is to be parallel to and distant about one hundred and ten feet easterly from the west side of Guilford avenue. This street would extend to about Preston street, and from there curve around the foot of the bluff at the south end of the Guilford Avenue Bridge, passing under the bridge and utilizing again the bed of the Falls as far as Charles street, passing under both the Calvert Street and St. Paul Street bridges.

This route, as well as the one to be mentioned later, would require either an entire new bridge at Eager street or quite an elaborate addition to the old one. But at Chase street the present bridge would answer very well with a few minor changes in the floor system until such time as it would be thought proper to replace this old structure with a more modern one, when the new bridge should be built with some slight changes in grade to benefit the surrounding conditions. At Biddle street the structural work of the old bridge could, very likely, be used by changing the skew abutments to ones at right angles to the line of the street, but at Preston street a new twin-arch would be necessary to span the Fallsway and the relocation of the railroad.

There has already been suggested another route which was, from the junction at Eager street, to curve the thoroughfare into Guilford avenue and to widen this avenue on the east to about one hundred and twenty feet. The Fallsway would then utilize this wide street northerly as far as Mt. Royal avenue, which was to afford the connection westerly.

Although this alternate route would prove an admirable treatment for Mt. Royal avenue, there are, however, some rather serious objections to it. For under this arrangement all of the houses on the east side of Guilford avenue, from Preston street to Eager street, would have to be acquired to permit the widening, and, although these buildings are not of a very expensive class, there are so many of them—about fifty—that a goodly sum would be added to the cost of the thoroughfare.

Again, if the intention is to build a low-grade connection from the waterfront to the up-town railroad stations and yards, this alternate route will add considerable to the elevation to be overcome in comparison to that of the line laid down on the plats. For the elevation of the grade at Eager street for both routes will of necessity be about fifty-four feet, and that of the intersection of Guilford avenue and

Mt. Royal avenue about ninety-five feet—a lift of forty-one feet; while it will be necessary, from this point, to descend approximately twenty-nine feet to reach Charles street at Union Station.

On the other hand, by using the first route suggested, the climb between the two extreme points would be only about sixteen feet. Indeed, the grades along the entire suggested line are extremely light and perfectly satisfactory in all particulars. It may be well, however, to call attention to the fact that the figures given in this discussion as regards grades, distances, etc., should not be taken as exact, for the final plans for the laying of the sewers may in many cases alter them quite radically, and the data given here is based on only preliminary information.

Relocation of Railroad.

The most serious problem to be encountered by the route shown on the plats is that of the branch of the Northern Central Railroad, connecting Union Yards with Calvert Station. Unfortunately, the railroad occupies a considerable part of the proposed street and the only remedy for this state of affairs is a relocation of the railroad throughout the section obstructed, which, to adjust properly, should be made from a point about opposite Read street to the west side of Guilford avenue.

By shifting the tracks to the location shown on the plats in red all apparent difficulties would be overcome, and there seems, at present, no other reason than that of expense why the railroad company should object. The new line would be in every way as satisfactory as the old one, having no increase in either curvature or grade, and it would, besides, eliminate three bridges over which the railroad now crosses and which it has to maintain.

Treatment of Suggested Route.

In the matter of the width of the suggested street north of Eager street, from a glance at the plats it will be seen that the thoroughfare along this portion will be more in the nature of a passage for cartage than for a street providing means for commercial usage in the form of abutting buildings. For this reason, then, the street need only be wide enough to allow for the proper handling of the traffic, and no space need be provided for the stopping, loading or unloading of conveyances, so that a roadway forty feet, allowing for five lines of traffic, is considered ample, and one sidewalk of ten feet. These widths would be continued to the terminus of the Fallsway at

Charles street, and for comparison the roadway of this portion would also be similar to that of Calvert street running south from Baltimore street.

The location of this terminal affords an excellent place for an esplanade effect, formed by the intersection of the Fallsway, Oliver street extended easterly, a proposed new street running northeasterly to connect with Union Station, and Charles street. This would be a most desirable distributing point and with some additional changes in the near neighborhood would be exceedingly beneficial to a very large area.

The most important of these suggested changes is the connection by way of Oliver street to the Bolton Yards and Mt. Royal Station. By raising the intersection of Oliver street and Maryland avenue from five to seven feet a very satisfactory grade would be obtained in all directions and no serious damage to the abutting property would result; also, Oliver street can be easily widened on the south side to as much as eighty feet without causing any excessive damages.

In connection with the routes laid down on the plats there are quite a number of special problems that would arise, but many of these are more in the nature of benefits than otherwise, and in some of them advantage would be had in having property to dispose of instead of to acquire.

From a glance at the plats it will be seen that by the proposed route all of the present bed of the Falls, between Biddle street and Guilford avenue, will be abandoned and with the event of the Fallsway this property should certainly possess a considerable commercial value. Though the title of the bed of the Falls has not yet been completed, it appears reasonably certain that if the city does not actually possess the fee simple ownership in the portion between Preston street and Biddle street it does at least own very valuable rights, and, with the exception of one lot, the railroad company owns the remainder of the stream bottom northerly to Union Station. Here, then, is an apparent opportunity for the city to exchange this property or rights for certain privileges and possibly for an adjustment for the relocation of the railroad tracks, for this space should certainly prove of marked value to the railroad company either for yards or similar commercial purposes.

Also, should the suggested plans be adopted, Mt. Royal avenue would certainly deserve some treatment, probably at its intersection with Guilford avenue, in which event Guilford avenue should be

widened on the east side, where there are no buildings, as far south as Preston street. But these improvements would in no way affect the alinement or any other features of the Fallsway.

On the plats is shown the plan for the civic center, which is almost identical with the recommendation of the Advisory Commission to the Municipal Art Society and the Merchants and Manufacturers Association, but no discussion of this project will be given here as its creation will not materially affect one way or another the location or any other feature of the Fallsway.

Cost.

To prepare a proper estimate for the cost of the execution of the plans recommended would require considerable time and calculation, and it was thought best not to undertake this task until the final plans for the sewers shall have been decided upon, and the tentative approval obtained of your Commission for some particular location. However, some general figures may be set forth which may aid in a general way in forming some idea as to the probable outlay.

From Baltimore street to Eager street practically the only work required will be a slight fill over the conduits carrying the sewerage, and a rather large embankment from Madison street to Eager street and, of course, the paving and curbing of the street. In regard to the paving, a rough estimate shows that in this section about 25,000 square yards will be required for the roadway, together with about 8,500 lineal feet of curbing and about 11,000 square yards of sidewalk paving.

From Eager street to Charles street the roadway will require about 14,000 square yards of paving, 3,200 lineal feet of curbing and about 3,500 square yards of pavement for sidewalk. It may be well to state that, based on the accompanying plans, the cost for paving the Fallsway would be approximately as follows: For granite blocks, about $141,000; for vitrified brick, $88,000; and for curbing, $7,500; and should the city decide to take care of all of the sidewalks the expense would be $19,700.

One new bridge will have to be built in the northern section, a twin-arch; and two other bridges reconstructed, one quite elaborately; also, there will be considerable earthwork north of Eager street to Chase street, mostly embankment, and several hundred feet of retaining wall, and to the northern section should be added, too, the cost of relocating the railroad, consisting of about 1,300 feet of double trackage and about an equal amount for three tracks.

There are several small spaces shown on the map for making atractive different portions of the route and these, of course, will add to the expense, but the details of the esthetic treatment have not yet been worked out for the principal idea of the plans is to treat the thoroughfare as essentially a commercial one and the beautifying features may easily be adjusted to harmonize with the Fallsway after the route has been selected.

Green Spring Parkway.

Another plan for improvement is the Green Spring Parkway. His Honor, Mayor Preston, directed that the Department study the neighborhood surrounding the present Green Spring avenue, just north of Druid Hill Park, with a view of making it more accessible and usable, primarily as a pleasure thoroughfare. The recommendations covering the zone under consideration were submitted in a report accompanied by a plat showing the proposed connection of Park Heights avenue with Green Spring avenue at its intersection with Keyworth avenue (formerly Fifth avenue), and the widening of Green Spring avenue from this intersection northerly to the city boundary.

The plans submitted were tentatively approved and detail surveys are now under way for the final determination of the lines. This work should be entirely completed by the early spring. Owing to the general interest which has been taken in this proposed boulevard it is thought well to reproduce the whole of the report here; it is as follows:

Baltimore, Md., September 13, 1911.

To the Hon. James H. Preston,
Mayor of Baltimore, City Hall, City.

Sir—In compliance with your instructions, I have the honor to submit the accompanying plan and report for the improvement of Green Spring avenue within the city limits.

But before commenting on the plan shown on the plat, it might be well to summarize in a general way on the neighboring topographical conditions with the rather negative purpose in view of pointing out

what seems proper, from engineering as well as economic reasons, not to do, and then by eliminating all methods which do not appear adoptable to explain the design of the suggested form of construction.

The most arduous problem in the development of Green Spring avenue into a servicable road is encountered at its southern terminus at Woodberry avenue. Here Nature has formed a declivity out of which it is possible to go in one direction only—to the settlement of Woodberry—without overcoming an almost prohibitive grade. The elevation at this location—the Green Spring Avenue Gate to Druid Hill Park—is 225 feet, while the summit in the park, from which to approach this gate, is 345 feet, making an average grade of 7 per cent.—almost prohibitive. The same difficulty is found in going northward, for at the intersection of Keyworth avenue (formerly Fifth avenue) and Green Spring avenue, a distance of 2,100 feet, the elevation is 125 feet higher than that of the gate, making an almost even grade of 6 per cent., which is also not to be considered for any useful thoroughfare.

About the same conditions are to be met with to the southwest, along Woodberry avenue, and in all other directions, except to the eastward, which is not the direction sought. Of course, a long detour could be made from the gate northward to ease down the greater amount of steepness, but the topography does not lend itself well to such treatment and the main objection, a poor point of origin, would not be altered. Evidently, then, some radical treatment must be made if it is desired to adhere to the present route and at the same time overcome these objectionable grades. Two methods may be considered for getting rid of this climb by adhering to the present alinement.

One suggestion that has been made is merely to fill in the present low places and cut off the tops of the high ones, a simple though hardly practical or desirable remedy when other points than grades are considered. Suppose, for instance, that at the southern terminus the elevation be raised 25 feet and at the Keyworth avenue intersection a cut of equal amount be made, this would decrease the actual lift by 50 feet and would alter the intervening grade to merely 3.6 per cent. But even if there were no other objections, this long haul of nearly half a mile would not be desirable; however, there are other and more serious objections to this proposal.

In the first place, this exceedingly heavy earthwork would embrace about 55,000 cubic yards of embankment and a like amount of excavation, merely to alter the grade without any widening of the road and with no allowance for the fill to the approaches along Woodberry avenue and the Park road, nor any adjustment for the cut at Keyworth avenue.

Again, by lowering the elevation at Keyworth avenue 25 feet a serious injury would be dealt the bordering property by placing it in an inaccessible position with regard to this road; and should this cut be eliminated and only the fill considered the resultant grade, about 5 per cent., would certainly not be a sufficient betterment to justify the work, so it seems only reasonable to abandon this whole idea of re-grading the present thoroughfare.

Another scheme that has been suggested is to build a viaduct over the low portion of the road and thus overcome the greater length of the hill, but on investigation it is soon discovered that to make this structure adequate it would have to be so very long, extending about a thousand feet in both directions from the gateway, that its expense would practically put it out of the question.

These, or some modifications of them, are the two methods by which the present route may be utilized, and as they both appear far from satisfactory there seems but one alternative left, which is, to abandon the most objectionable part of Green Spring avenue as part of the parkway by a change in the location of the southern terminus.

As far back as the year 1898, when the General Plan of Streets for the Annex was adopted, it was seen that some extraordinary treatment was required in order to develop a satisfactory roadway out of Green Spring avenue, and on this plan was shown a connection based on the same general principles as those shown on the accompanying plat.

Later still, when the consulting landscape architects, Olmsted Brothers, submitted their excellent report on the "Development of Public Grounds for Greater Baltimore," they, also, suggested almost the identical plan which is now proposed. But while no details were mentioned in this report, the general alinement was very near the same and the report made bold to suggest that an average width of 300 feet should be employed, extending the line northwesterly from the city boundary to intersect Pimlico road; of course, in the following comment the recommendation is limited to the city boundary, but provision is made so that its continuation into the county may easily be carried out at any future time.

The benefits of the suggested relocation of the starting point of this parkway was referred to in the report of the Topographical Survey Commission for the year 1908, and the name given to it was Wood Hill road, but in the following discussion this cut-off as well as the northern part of Green Spring avenue will be included under the general name of Green Spring Parkway.

As the broad purpose of this highway, as well as most any other, is not simply to permit of a channel of transportation to and from the

intermediate property, but to afford a well-planned connection to certain sections; the starting point should be considered with marked respect to the neighboring conditions. In the area under consideration here the salient point is the intersection of Reisterstown road and Park Heights avenue, at the Pimlico Gate to Druid Hill Park. At this junction definite plans have already been adopted for the riddance of the present awkward and dangerous condition by the creation of the circle to divide traffic and treat in an attractive manner this important center of distribution.

Moreover, now that the city has gained possession of the old turnpike, and as the State Roads Commission will, no doubt, soon have it in excellent condition for a thoroughfare, this circle will form an excellent meeting place for travel seeking the route of the proposed parkway.

Also, included in the plans for the future, is a widening of Park Heights avenue; but whether or not this should be carried out, the cut-off would not be seriously affected, except, however, that portion of the avenue from the Pimlico Gate to the first bend, which should certainly be increased in width to at least 130 feet in order to have a proper approach to the parkway; for Wood Hill road, along its southern portion, is, in fact, merely a projection northeasterly of this part of Park Heights avenue and should the avenue be left at its present width of 74 feet the parkway would have a cramped appearance at its very beginning.

Briefly, the new road will wind, by a series of easy curves, from Park Heights avenue along the side of a ravine to meet Green Spring avenue at its intersection with Keyworth avenue, and from here to the city boundary the parkway will utilize Green Spring avenue by widening it and regrading it.

In regard to the curves along the route, they are used, of course, to obtain an easy grade, but on the ground they will not have anything like the sharp appearance the small scale map would tend to indicate. Indeed, the curves are remarkably easy and when actually constructed they will resemble very much many of the driveways in the city parks.

One of the most pronounced features of the new cut-off is the separation, for the greater part, of the north and south driveways. These are arranged very much like the two roads on University Parkway, north of Merrymans lane, though the space and difference of elevation between them will not be so great. By such an arrangement easier grades are obtained in both directions and the open space will permit of attractive parking. The two driveways are not exactly parallel throughout, but diverge and converge somewhat with the contour of the ground.

The width of the parkway varies from 116 to 150 feet, but it is not the intention to adhere strictly to these limits, for they are given for what is merely deemed a minimum adequate course, and should room be desired for a car line the boundaries could be broadened considerably. Indeed, to make this road distinctly parklike and preserve the openness of feeling engendered by the proximity of Druid Hill Park the widths mentioned should almost be doubled, and the extra space devoted to terracing and other attractive forms.

The design submitted provides for two driveways of 32 feet each, separated by a planting space varying from 6 to 20 feet; two sidewalks 6 feet wide, separated from both driveways and building lines by planting spaces varying from 6 to 10 feet, and two lines of curbs and gutters on each side. At the several intersecting streets the two driveways are brought to the same elevation to permit of proper crossing, and this is also the case where the cut-off meets Green Spring avenue; from this junction northward the driveways remain on the same plan for about 1,000 feet, then they seek different elevations for about 400 feet and are finally brought together at the city boundary.

The grades south of Keyworth avenue are very satisfactory; the maximum being at the rate of 4 per cent., but this for only a short distance—about half a block—which is in the direction favorable to travel. North of Keyworth avenue the grades become rather heavy, especially near the boundary, and for a stretch of 1,200 feet the rate is 5 per cent. in opposition to travel; this, however, can very likely be eased down quite a good deal when the final plans are made.

The foregoing covers in a general way the essential principles of the parkway, but to make this route attain a highly serviceable purpose other neighboring streets should receive some consideration to make of them proper feeders to this main artery of travel.

The most natural question arising in the creation of the parkway is what to do with the discarded portion of Green Spring avenue; for, as has been remarked, this avenue in its present condition is a very poor apology for a roadway, and it seems a very difficult task to improve it along desirable lines. Yet, it will undoubtedly remain open for traffic and, such being the case, something should be done to improve it as much as natural conditions will permit. So, in this connection, it is suggested to widen it somewhat, probably to about 70 feet, and construct a well-paved roadway of 40 feet with two sidewalks of 15 feet.

In the event of the parkway, the junction at Keyworth avenue would naturally become a distributing point of much importance, and this avenue going westerly would be greatly used and should, therefore,

also be improved along liberal lines. Moreover, it is proposed ultimately to extend Keyworth avenue easterly; this latter project being the subject of quite a little comment in the report of this Department for the year 1909. In this discussion it was called Bend Hill avenue, and its general alinement was described as follows:

"Bend Hill avenue would begin at the intersection of Green Spring avenue and Fifth avenue (now called Keyworth avenue), and from there it would run in a general northeasterly direction, by easy curves, crossing the Northern Central Railroad overhead. At a short distance beyond this crossing it would branch into two roads, one of these branching roads would continue northeasterly to meet the Falls road, just north of the northern city boundary, and from there it would wind into University Parkway at Roland avenue, thus giving an excellent connection to Roland Park by this avenue and also a route to the northeastern section via. University Parkway. The other branching road would be diverted southeasterly to intersect the Falls road and give a connection with the Hampden section. At present no development has taken place within this territory, and such an opening as this would afford an excellent way of preparing this large area for building purposes and make it accessible to all other sections.

"In conjunction with other openings mentioned in previous reports, Bend Hill avenue would form a link in a long chain of streets forming a continuous thoroughfare from the extreme southwestern section of the city to the extreme northeastern section."

In regard to the cost of such a parkway as that suggested, it is extremely difficult from the meagre data obtainable to form a proper estimate, but some broad figures may be given, based on the information at hand, which should indicate in a general way what may be expected.

Along the section between Park Heights avenue and Keyworth avenue the embankment exceeds the excavation by about 12,500 cubic yards, but north of Keyworth avenue the cuts and fills about balance each other, and a rough estimate for all of this earthwork is about $21,500. Nearly 1,000 cubic yards of retaining wall would be required in connection with this earthwork, and this is placed at $10,000. The paving with bituminous macadam along the entire route is figured to be about $39,000; curbs and gutters, consisting of four lines of each, $20,000; and for drain pipes, catch basins and sundries, $10,000, making the total cost of the parkway a little over $100,000.

To this should be added the approaches along Park Heights avenue, which to widen and improve would cost about $10,000; and should the discarded part of Green Spring avenue, south of Keyworth avenue, be

considered as part of the scheme, an addition of about $20,000 should be made, so that the total cost for the entire thoroughfare would be, in round numbers, $130,000.

The development of the entire parkway has been worked out to impose the least possible burden on the property that abuts on it, as well as that in the near neighborhood, and partly for this reason no damage whatever has been considered for the property required; for, it is deemed, if the owners were properly approached they would very likely be willing to surrender the necessary land at little or no expense.

Respectfully submitted,

(Signed) Joseph W. Shirley,
Chief Engineer.

Gwynn's Falls Parkway.

Gywnn's Falls Parkway is another proposition similar in a way with the Green Spring Parkway, except that in this incidence the connection is between two parks—Druid Hill Park and Gwynn's Falls Park—now separated by a network of city streets through which one has to traverse to make the journey from one park to another. This new connection would afford an ideal link, and now that it is quite advanced in course of condemnation every effort should be made to provide for its actual construction.

The Alameda.

Considerable comment has been made from time to time in the reports of this Department concerning the opening of the Alameda. This boulevard, it will be recalled, unites Clifton Park with Venable Park, and runs thence westerly via Thirty-third street to Wyman Park. The proceedings for its opening had reached the condemnation stage when a protest was lodged by the Gilman estate that the construction of such a street would seriously injure their property, and petitioned for a changed line. After a conference with all concerned

an alternate line has been submitted, which will, very likely, prove satisfactory to the city as well as to the property-owners interested, and the final decision will be made very soon.

Huntingdon Avenue Viaduct.

There has been quite a little talk of late relative to a better connection from the Hampden section across Stony Run Valley to the central portion of the town; and, with such a purpose in view, the Department was asked by his Honor, Mayor Preston, to study the question.

Although there is at present no crying need for such a connection other than that existing, it is, of course, much safer to err on the side of anticipation than of delay, and while it is not likely that anything will be done very soon to carry out the suggested plan it might, perhaps, be of interest to some to learn of the conditions and what has been suggested, so the report is given here:

TOPOGRAPHICAL SURVEY COMMISSION.

Baltimore, Md., December 13, 1911.

Hon. James H. Preston,
Mayor of Baltimore, City Hall, City.

Dear Sir—In conformity with your verbal request, I have carefully considered the advisablity of forming a connection from the southern end of the Huntingdon Avenue Viaduct to the new Wyman-Druid Hill road, and I beg to submit herewith my conclusions.

The accompanying plat shows very clearly the street system and the topography around this neighborhood, and a broad study of the requirements of the contiguous sections with a view of improving the transportation facilites would indicate that Huntingdon avenue is potentially the most serviceable connecting link, for at present the only thoroughfare for crossing the Stony Run Valley between University Parkway and Cedar avenue, a distance of about a mile, is Remington avenue; and, while this avenue is of normal width and well paved, its usefulness is much diminished by the rather excessive grade at its curve into

First avenue. However, it will undoubtedly serve for a good long time all reasonable demands, and there is no immediate requirement for a betterment.

To revert now to the specific subject of this letter, it seems that a connection by a prolongation of Huntingdon avenue, from the southern end of the viaduct to the new park road, could only be made by creating an excessive grade, and as such a connection would be into a road under the supervision of the Park Board, it could only be used by pleasure conveyances and not general traffic, so that it would not be of marked value to the community as a whole. An alternate scheme, and probably a better one, would be to curve the connecting road further to the eastward to meet the present new park road at its intersection with Remington avenue. By doing this the grade would be eased considerably, and as a mere connection with the avenue and roads under consideration it would be perfectly feasible; also, such a road would permit of commercial as well as of pleasure traffic. There would still be encountered, however, for traffic seeking a route northward across Stony Run Valley, the steep grade on Remington avenue mentioned above, and if the mere joining of Remington avenue with Huntingdon avenue is desired, Thirty-first street would provide the same benefit. This latter plan will very likely be carried out in due course of time, when the traffic seems to demand it, so it would appear hardly necessary to form them both.

It would seem then, that the most feasible solution to the problem as a whole would be the extension of Huntingdon avenue in the form of an adequate thoroughfare. This could be done by replacing the present railway viaduct with one carrying the street bed as well as the car line. Such a structure should be built not less than fifty feet wide, allowing of a roadway of thirty-six feet for car tracks and passageways on each side for vehicles. It should be built of concrete with a series of small arches and would, if well designed, form a pleasing aspect to the landscape parking as well as affording a valuable thoroughfare.

There is no immediate necessity for this extension, but I deem it well to make the suggestion here in order that the city may adopt some definite plan for providing adequate means of intercommunication with the rapidly growing sections embraced.

Such an extension of Huntingdon avenue would ultimately form an admirable chain of broad streets, extending from the extreme northern section of the city to the southeastern section. This would embrace First avenue, Huntingdon avenue, Twenty-fifth street and its adopted extension easterly to Harford road, and, finally, the proposed prolongation northward of Broadway.

There is also shown on the accompanying plat a series of proposed roads radiating from First avenue at its western terminus. These are of no special relation to the condition of Huntingdon avenue, except by showing the feeders that will eventually seek an outlet across the Stony Run Valley. One of these roads, in particular, will form a border around the northern and northeastern parts of Druid Hill Park, and will undoubtedly be a source of developing a large tract of territory. So, when all these various streets are considered in relation to an outlet southward, it appeals to me very strongly that the new viaduct, rather than the mere connection of Huntingdon avenue with Remington avenue, is the better solution of the problem.

In conclusion, I beg to suggest that when you have finished your study of the accompanying plat you return it to this office so that we may keep it on file where you may, of course, have access to it at any time.

Very respectfully,

(Signed) Joseph W. Shirley,
Chief Engineer.

Light Street and South Baltimore.

Still another section the Department was requested to report upon with a view of improving the transportation facilities was the southern portion of the city, from Lee street to Light Street Bridge. Already definite plans are under way for the betterment of the waterfront along the south side of the basin; the important undertaking being the so-called waterfront street and a new municipal pier, all of which is under the supervision of the Harbor Board. So, with the idea of formulating a broad civic improvement for all of the section known as South Baltimore, the Department was asked by a resolution adopted by the Commission on City Plan to submit a study. These plans cover, among other things, the elimination of all railroad grade crossings, especially for the new lines of the Baltimore and Ohio Railroad and the Western Maryland Railroad; a thoroughfare to connect the central business section of the city with the proposed bridge to take the place of the present Long Bridge; and a series of high-

ways throughout the territory to afford ample means of intercommunication with various important locations. The details of this will be submitted very shortly in a special report, but it might be well to mention here a few of the more important projects which would, to a great extent, promote the development of this commercial district.

Probably the most important governing feature for the expansion and projection of the street system throughout this area is the proposed bridge suggested by his Honor, Mayor Preston, to connect Baltimore city with Baltimore county and, also, Baltimore county with Anne Arundel county, doing away with the present Long Bridge.

But before taking up the street system in relation to the bridge, it might be well to pause for a moment and point out the advantages of forming a park along the waterfront of Baltimore county in the vicinity of the bridge landing and extending back on the bluff into what is now farming land. This would, indeed, be an admirable location for a civic pleasure resort for the general community of South Baltimore and it would, besides, rid the county of those very objectionable resorts now existing there; also, the sphere of usefulness of this park could be greatly enhanced, besides bringing in a certain revenue, by treating it in a manner similar to that employed by Philadelphia with Fairmount Park, for immediately bordering on the shore line is an excellent stretch of waterfront, part of which, at least, the city could lease for the use of those associations desiring such sites, such as yacht, rowing and swimming clubs. Altogether, it would appear, this location is worthy of marked consideration for park purposes; especially so since it is generally conceded that Swan Park will be abandoned for the purpose originally intended, and there is certainly no doubt that South Baltimore is in need and should very properly be provided with an attractive recreation center.

To revert now to the commercial point of view, for after all it is the street system that must be expanded along broad, liberal lines in order to develop this section. Already a start has been made along this line by the pending construction of the waterfront street above mentioned, but this is merely a wedge, so to speak, for the systematic carrying out of a well-defined street plan and, to take it to its logical end, this thoroughfare should be extended along the same general lines, bordering the harbor, to the new piers of the Baltimore and Ohio Railroad.

On the south shore of Locust Point there should ultimately be another similar street, extending from the west limits of Fort McHenry, westerly, to where McComas street, extended easterly, and Allen street, extended southwesterly, would intersect; and, to afford proper intercommunication between the Locust Point section and the Ferry Bar section, these latter two streets should both be extended in the direction mentioned, along widened lines; also, from the intersection formed by Allen street, McComas street and this proposed waterfront street, there should be, if conditions will permit of it, still another shore-line street extending southwesterly to connect with the new bridge. The yards and piers of the Western Maryland Railroad, may, however, block this latter connection.

Still another location for the same kind of a thoroughfare is along the northern shore of the Middle Branch. Such a street should extend from the landing of the bridge, northwesterly, to about Jephson street. This border arrangement would, indeed, serve a highly useful purpose, and should have a marked stimulating effect in promoting industrial growth.

As for the north and south thoroughfares in this section, Hanover street is by long odds the most serviceable. It is well paved for a considerable portion of its length and it has, besides, no car tracks. Its grade, too, is very moderate—the elevation of the summit being only 39 feet, while the high

point on both Light street and Charles street is 55 feet. To afford a proper approach to the new bridge Hanover street should be produced southerly to intersect the waterfront street above mentioned along the Middle Branch, and this latter street should be connected in with the bridge landing.

Lafayette Avenue Grade Crossings.

In view of the fact that this subject has been agitated for some time without any satisfactory solution having been found, and as it is very likely to arise soon again for discussion, I think it well to reproduce here a joint report bearing on the subject submitted to the Railways Committee of the City Council by this Department and that of the City Engineer. The report is as follows:

Baltimore, Md., February 13, 1911.

To the Honorable Members of the Railway Committee of the City Council, Baltimore, Md.

Gentlemen—Under instructions from your committee, we have considered carefully the ordinance pending for the elimination of the grade-crossing at Lafayette avenue; and, also, the many and diverse problems relative to the effect this ordinance would have, should it be approved, on the development of the property within a considerable area of the proposed change; and, following your request, we shall submit a resume of our conclusions, together with some recommendations which we deem are essential for a proper adjustment of the entire scheme.

It may be well in the beginning to call attention to our viewpoint that this ordinance should not, by any means, be considered in the light of abolishing a single grade-crossing—that of Lafayette avenue—for this is merely a minor detail of its ultimate effect. Indeed, the provisions embraced are such as to govern in very many important ways the future growth of all that portion of the Annex lying west of the Philadelphia, Baltimore and Washington Railroad, between Edmondson avenue and North avenue. So, we consider, that no action should be taken with regard to it without giving due weight to the resultant important objections which, we feel, would surely spring into life.

In our study of the proposition, we at first focussed our attention on the provisions of this ordinance with a view of discovering, from the city's point of view, just what advantages, if any, would be the final result, and our conclusion is that the result will be one essentially for the benefit of the railroad company, for practically its only value to the city is the abolishing of a single grade-crossing. Though, it is true, that this in itself is a very desirable attainment, nevertheless, if the final effect is to be such as not only to retard the growth of the street system as a whole, but also to present additional injurious conditions, then we feel that the scheme is, indeed, in error.

The plan proposed in this ordinance is, briefly, to grade out Lafayette avenue by quite a deep cut and to carry the tracks, at their present elevation, on a bridge over the bed of the street. Viewing the section to the east of the railroad, we find that for the present there would result, with one not very important exception, practically no damage to the property-owners. Though for the future extension of other streets in this neighborhood the expense, due to the proposed change, would be increased to almost a prohibitive extent; however, we may leave this proposition at rest for the present and consider what the result would be to the area west of the tracks.

First—The resultant grade on Lafayette avenue, from Smallwood street to Bentalou street, would be at the rate of seven per cent. (7%); for sake of comparison, this would be a trifle less. that the grade on Lexington street, between Calvert street and St. Paul street, which is about seven and one-quarter per cent. (7¼%). This in itself should be sufficient grounds to condemn the ordinance, for when we stop to consider that at present both the State and city are spending quite a vast sum of money to revise the grades on so many of the present important thoroughfares, we should hesitate before creating additional obstacles to traffic. If Lafayette avenue were merely a street of secondary or little importance, we feel that this hindrance might possibly be overlooked and allowed, but the effect of this ordinance will add even more to the stream of traffic which now flows along it. Indeed, the resultant conditions will be such as to practically prohibit the extension of any cross streets between Edmondson avenue and Monroe street—a distance of approximately three-fifths of a mile—or for an east and west street as far north as Baker street. Surely, then, the effect of this one crossing for all the adjacent area will finally be to converge a mass of congested traffic along a channel of almost prohibitive steepness.

Second—A glance at the map of the area involved in connection with this ordinance shows clearly the vast tract of land that is

awaiting development only on account of its inaccessibility to the heart of the city; and, although a grade-crossing is a serious hindrance in this respect, we fail to see how its elimination as proposed in this ordinance will accomplish other than substitute a different kind of burden for the existing awkward conditions.

Even with all possible modifications of the present ordinance—that is, for the same manner of crossing, a minimum grade of five per cent. (5%) would be the result for Lafayette avenue, between the railroad and Wheeler avenue (formerly First street); and in connection with this the grade of Smallwood street, going north from Lafayette avenue, would be about six per cent. (6%), while that of Bentalou street, in the same direction, would be at least five per cent. (5%); all three of which excessive grades would necessitate exceedingly deep cuts. So, under these conditions, we do not feel that there is sufficient cause to pay attention to further details to such a revision.

In any event, whether the original scheme as set forth in the ordinance or a modification be considered, the result in both cases would absolutely prohibit the extension of Mosher street, from its present dead end at a location a little west of Payson street across the railroad tracks into the virgin territory of this neighborhood.

In view of the facts as we have set them forth here, we unhesitatingly condemn the plan of the ordinance and, we think, for both the present and future needs of the city, that it should be rejected.

We shall now consider the plan as originally proposed by the Topographical Survey. Under this plan Lafayette avenue would be raised for an overhead crossing and the tracks would be lowered about twelve feet below their present elevation. This would change the grade of Lafayette avenue, from Payson street to Pulaski street, to four per cent. (4%); or, for sake of comparison, we substitute a short grade of one block at four per cent. (4%) for a long grade, even under the modified plan, of five per cent. (5%) for two and one-half blocks. Under the new plan the remaining grades for the cross streets would vary only between one per cent. (1%) and two and one-half per cene. (2½%); and all of this, with one slight exception, with no damage to the west of the railroad.

To the east of the railroad, however, there would occur quite a radical change, that is on Lafayette avenue, from Payson street to Pulaski street; here, considering the subject in a broad-minded manner, we think that by far the best policy to be pursued would be for the city to purchase outright all of the lots in the affected zone and after the

changes incident to the crossing were made this property could, of course, then be sold again, and probably at an enhanced value due to its utility in affording easily-constructed sidings from the railroad.

Again, Mosher street, which has long been considered for the future an important thoroughfare to extend across the railroad and thereby open up for improvement a lot of valuable territory, could be opened up on very good grades and at a comparatively small expense.

As to the relative cost of these two undertakings, we find from a preliminary examination and estimate that the amounts would be as follows:

For the completion of the plan as outlined in the ordinance, including all damages, the expenditure on the part of the railroad would be about $285,000; and for the plan proposed by the Topographical Survey the total cost for the construction work and for the acquisition of the property would be about $408,000, but the main point of merit should, we feel, by no means be considered purely from an economical point of view, but rather in its large scope as a solution and stimulus for the development of a large area of unimproved territory into a stae of increased revenue in the way of taxes.

From our consultation with the railroad company's representatives, we are satisfied that the new plan will meet with the company's approval in all essentials except that of expense; but, on the other hand, the new plan is in no intrinsic way a betterment from the standpoint of the company's needs and requirements, So, in this respect, we feel justified, in view of the many advantages obtained, for the city to share a certain portion of this increased cost; or, to put it in a little different way, we think that conditions are analogous to that of the elimination of the grade-crossings of the Baltimore and Ohio Railroad in South Baltimore, and that the city should stand willing to share in the cost which will in nearly every particular be for its own benefit. In other words, to put it very plainly, if the city desires that which the railroad company will not give and which cannot be obtained in any other manner, and which the city yet wants and needs badly, it should then be ready to pay something for the value received.

Respectfully submitted,

(Signed) B. T. FENDALL,
City Engineer.

(Signed) Jos. W. SHIRLEY,
Chief Engineer, Topographical Survey.

Street Names.

A topic of much interest to the Department and one closely associated with its work is that of the naming of streets. From time to time ordinances are introduced in the City Council authorizing the changing of street names, and inasmuch as this is a subject of more than passing importance, I deem it well to give some little attention to it here. In doing this, however, I shall merely quote some remarks from a communication from the Department to the Commissioners for Opening Streets, for this letter covers in a general way the main reasons why changes in street names should be carefully scrutinized before they be allowed to become legally adopted. I quote as follows:

"Of course, it goes almost without mentioning, that where two different streets bear the same name that one should be changed; and, also, as a general proposition, that streets following the general alinement, but disconnected for short spaces, should, if other conditions permit it, bear the same name, but these two points, as well as other good ones, were thoroughly investigated by the so-called Brune Report, and the final adoption of the ordinance incorporating it has done a great deal to clear up and simplyfy the problem. Since then, however, various ordinances have been submitted from time to time proposing additional changes in names, which, for the most part, are for purely fanciful reasons and not at all for a systematic purpose.

"In glancing at the map of the city, one is apt to be impressed with the importance of a number of main arteries of travel leading almost in direct lines to outlying towns and settlements. These are, of course, what were once the old toll roads, but which have by various means been improved and converted into excellent public thoroughfares. Without an exception, these old roads have borne names descriptive of their destination—a most logical and satisfactory arrangement. But in spite of this many efforts have been made from time to time to change the 'road' part to some absurd nomenclature as 'avenue,' 'street' or 'boulevard.' It seems to me there is neither rime nor reason in such procedure, and where the descriptive name, so to speak, is altered nothing at all is gained, except, possibly, to those fond of euphonious designations.

"Surely, any intelligent person would know that if you mentioned the Frederick road that you referred to the road leading to the town of Frederick, or to the Belair road as the route to the town of that

name, and so with the various others. These roads also bear the same names for a good distance in the counties they traverse, and they are referred to in many thousands of deeds and other legal instruments describing abutting and adjacent property, so that a change of name is a matter that should be considered with a little more reason than mere fancy. Take, for instance, Fayette street, and observe the confusion that must surely result now from any research into records pertaining to it. At one time or other various parts of this street were known by the following: Wapping street, Pitt street, East street, East lane, Kintamini street, King Tammany street, Chatham street and Milk lane.

"When a road has borne a name for an hundred years or so it possesses an identity that even from a sentimental point of view should not be carelessly thrown aside. If there were any useful purpose whatever served by a change in name it might be reasonable to allow it, but in so many cases, where the motive is so obviously fanciful, it seems absolutely absurd to allow a change."

Building in the Beds of Streets and Analogous Problems.

For many years past the city has experienced much trouble in preventing owners of outlying property from building in the beds of proposed streets—"paper streets," as they are sometimes slurringly referred to. But each year this difficulty grows less and respect for the city's plan is constantly increasing. During the past year the few unimportant cases that arose were adjusted without any serious upsetting of the plan, and there is good reason to feel that this trouble is on the wane.

Analogous to this subject is that of the laws recommended by the Third National Conference on City Planning, held in Philadelphia last May. An excellent report was submitted at the Conference by Mr. Andrew Wright Crawford, Chairman of the Committee on Legal and Administrative Methods, entitled "Certain Principles of a Uniform City Planning Code." Together with this report were drafts of Acts to procure the legislation sought. Of the more important of these Acts are those touching on excess condemnation. This

should, indeed, prove an highly interesting study to those engaged in any phase of city planning; for, if our American courts can see fit to recognize such principles as constitutional, we shall then undoubtedly find it much easier to solve the many intricate problems that now confront us in our aims to rearrange the bad features of our towns and cities, and a long stride in municipal advancement would be secured.

Here, in Baltimore, we have already obtained some legislation along this line, for in the Acts of the General Assembly of 1908, Chapter 166, approved March 30, 1908, the city was given very broad powers in the way of excess condemnation. But so far no move has ever been made to use the provisions of this Act, and no decisions whatever have ever been rendered concerning its constitutionality. It was presented to the Legislature, I think, with the ultimate purpose in view of carrying out the proposed extension of Howard street, and the general impression seems to exist that should excess condemnation be considered constitutional by our Court of Appeals, this Act would, in all probability, convey the intended purpose as well as most any law that could be framed. So, it simply remains for the city to take the initiative and utilize the powers granted by passing proper ordinances defining the method of procedure and, if so desired, test the matter in the courts.

While these problems are under consideration it would not be amiss for the city to take some action to modify, at least, the billboard nuisance. This is a question that badly needs controlling and the sooner some action is taken in regard to it the better for the city as a whole. What is needed most of all just now is a kind of campaign to educate our citizens to such a point that public opinion will demand some legislation for controlling the matter.

St. Louis has done this in a very creditable manner and though the question is now in the Supreme Court of the United States a certain amount of good has already been accomplished and it appears as though more will result. In

Baltimore our various woman's clubs and associations could probably accomplish a great deal by devoting some energy in this direction.

Care of Shade Trees.

There has recently been made by the Water Engineer a suggestion that the area of the water shed at Loch Raven be turned into a forest preserve and park. This brings very forcibly to mind the plan for the city to organize a department to supply our parks, squares, streets, etc., with shade trees. At present the city has no control whatever over trees planted along the sidewalks of streets, and as a result these trees are, as a rule, very ill kept and are constantly being mutilated by public service corporations and others who find them in the way of their work. The Department has recently collected quite a good deal of data concerning the designing of residential streets, and it is very noticeable that the cities making the best showing in the way of attractive streets are those which have a forester in charge.

The American Civic Association, which met in Washington in December, devoted quite a good deal of attention to the progress American cities had made in the way of beautifying their streets by tree planting under municipal control; and, since then, the Department has collected copies of legislation, cost data, methods of assessment and other similar information bearing on the subject; and, with the co-operation of his Honor, Mayor Preston, which he has heartily given, it is hoped soon to accomplish a good deal along this line in Baltimore. The first step will be to secure the necessary legislation from the coming session of the General Assembly, and then to have the City Council authorize the method of procedure.

Other states have adopted such legislation and many cities have taken advantage of it to make more attractive their streets. The District of Columbia organized such a department in 1872, and it is now spending $40,000 annually for

caring for about 95,000 trees. New York, Pennsylvania and Massachusetts have all adopted similar Acts; and Chicago, St. Louis, Cleveland, Buffalo, Hartford, New Orleans and Pittsburgh have each secured control over their shade trees. Even in the small State of New Jersey thirty-one towns have established shade tree commissions. It would seem, then, that Baltimore is slightly behind in this line of civic betterment, and it is high time that we take some action.

Narrowing Roadways.

With special reference to the great amount of new paving to be undertaken by the city during the next few years, I beg to submit for your Commission's consideration the advisability of narrowing the roadways on many of the residential streets, especially in what may be termed the suburban zone of development. In the past the custom has been to make each sidewalk one-fifth of the total width of the street, but on many residential streets, where there are no car lines, the roadbed can very readily be narrowed a considerable amount. This has been done in other cities to the general satisfaction of the neighborhoods, and, of course, at a reduced cost over the unnecessarily-wide paved street. Probably it would not be amiss to give some of the more important reasons that have led to this suggestion.

In the first place, as to the location of the street, the modern treatment is to let it conform as closely as may be to the topography, winding it by easy, graceful curves where proper, but in no instance creating an artificial curve merely for the sake of so-called artistic treatment; for, after all, the straight way possesses many admirable advantages and there is a certain dignity about the long, wide, straight thoroughfare that is not given in the curvilinear route.

To consider now some definite figures regarding the cross-sections of streets take, for instance, the width of our most common ones—sixty-six feet—a survival of the old four

perches. The width between curbs on these streets is thirty-nine and six-tenths feet, which, allowing sixteen feet for the passageway for two vehicles—this being generally considered a proper standard—would allow of five streams of traffic; the proviso being that there are no car tracks. On purely residential streets this width is almost absurdly excessive. How much more attractive would be the appearance if this width was narrowed down to say twenty-four or thirty-two feet—ample for all reasonable requirements—and the extra space given for the growth of trees or other plantations.

The cost, too, would be considerably lessened by following such a plan, for by a very simple calculation we find that on each mile of paved roadway, if we narrow the space from thirty-nine feet, using round numbers, to twenty-four feet, thereby providing for three streams of traffic instead of five, we save $17,600; the paving being figured at $2 per square yard. But, aside from all of this, the effect, even on comparatively narrow streets, is very desirable, and with the proper planting and care of the shade trees along the sidewalks, and with provisions for grass plots, the street is really pleasant to look upon—now it is often an eyesore.

Some of our citizens seem rather skeptical of this treatment, and to these probably the most convincing argument would be a personal inspection of the beautiful city of Washington. There, indeed, the streets are much wider than ours, but the proportion of roadway in relation to the total width of the street is, to a marked degree, less; the sidewalks, of course, being wider, and there seems no good reason why the same principle should not be employed in Baltimore.

Systematic Planning for Annexation.

Plans have been discussed for many years looking toward extending the city's boundaries, but whether or not this actually takes place in the near future there should certainly be some arangement made for a systematic planning between the

counties and the city for the border territory. There are many problems to be considered in such a plan, as, for instance, the street lines and grades, the sewerage, the extension of the street railway system, etc. Annexation would, of course, solve many of these problems, and should this be done probably the most important point to be considered is liberality in fixing the new boundaries.

In 1888, when the city was last enlarged, the boundary line was extended about two miles on both the north and on the west, but not at all on the east. The territory thus acquired was thought at the time ample for a great many years to come, but we of the city now realize very acutely that the ideas in vogue then were far from broad. A similar problem now confronts us, and we should at least bear in mind the lesson of the past so that within another quarter of a century our plan will at least be as adequate as our conception of future conditions will allow us to provide. It is, of course, very easy now to criticise projects that were planned in past years; but, nevertheless, when we look a little closely into the matter we are apt to be impressed with the fact that those things which stand forth boldly as civic betterments and which are adequate for modern usage were often considered by many at their origin to be entirely beyond the realm of necessity or, plainly speaking, without the pale of good reasoning. So, bearing this in mind, we should certainly strive to extend our boundaries to the utmost limit for a sane, organic municipality.

Take, for instance, our transportation problem, and consider the strides we have made during the last decade or two; surely, we have the right to expect further improvements along this line in the next twenty-five years, and, as the ability increases to move persons from the outlying communities to the heart of the town, so, also, do the relations between the two sets of citizens become closer. The city proper, by which is meant the more commercial portion, is the heart of not

only the suburban and residential sections of the city, but a larger outlying area included within a zone depending on the accessibility of the location. Consider, for example, Catonsville, Mt. Washington or Roland Park; surely, these settlements have a vast interest in Baltimore, and there is practically nothing except an imaginary line that separates their mutual interests.

But if we may not have additional annexation in the near future, which I understand it is the intention of the administration to ask authority for from the General Assembly of 1912, we should at any rate make a serious effort for co-operation between the counties and the city on problems of mutual importance. Probably the most logical step to be taken at first would be to call a conference between representatives appointed by the city and by the county commissioners, with the object of devising some method for controlling the subjects. Other cities have done this to their great advantage; Boston, especially, having created a wonderful system of metropolitan parks by a similar scheme of co-operation.

Apropos of this subject it is worthy of note that other states are enacting from time to time some form of Town Planning Act, whereby certain sections are platted for future development very much after the manner in vogue in Germany and in England. Indeed, during recent years, there has been a general awakening to the vital importance to all phases of the town planning and the housing problem—more especially for the poorer classes—and this is a subject intimately related to the designing and supervision of the street plan with which this Department is primarily concerned.

As yet very little has been done in America for carrying out any of the so-called Garden City Treatments, but the subject is receiving more attention each day and the light of intelligent control is beginning to dawn on the more awakened of our citizens. When we read of the great work which is being carried out in the English settlements of Letchworth, Hampstead, Bournville and Port Sunlight it would seem high

time for us to begin a study of some form of this regulation suitable to our conditions and environment, for the housing problem, by which is meant its broader phase, including the proper setting, general surroundings and relations to a proper street plan as well as adequate open spaces is, after all, the nucleus of the hygienic and moral welfare of the community.

Plats for Various Purposes.

By far the greater number of plats made by this Department are for the opening of streets, but many are also made for street closings and others for miscellaneous purposes. Below is given a list of plats prepared during the past year; in nearly all cases descriptions to be embraced in ordinances or deeds were furnished, and usually a preliminary title search was required in order to show accurately the outlines and ownerships of the property embraced. The Harford road plat was probably the largest condemnation plat ever prepared by the city and, also, it was probably the most difficult one on which to determine the property and street lines.

Most of the streets mentioned in the following list have been commented on before in the reports of the Department, so no further explanation will be given here. The list is as follows:

Plat for the opening and widening of Creamer alley, from Barre street to Lee street.

Plat of property to be acquired from Louis and John G. Maier.

Plat showing location of Guilford avenue, between Mt. Royal avenue and Eager street.

Plat showing proposed treatment of streets along Jones Falls.

Plat showing location of property along Jones Falls, between Baltimore street and Gay street.

Plat showing chord points of southwest side of University Parkway.

Plat showing location of property along Jones Falls, between Pratt street and Baltimore street.

Plat showing location of property along Jones Falls, between Gay street and Monument street.

Plat and profile showing change in location of Frederick road, crossing Gwynn's Falls.

Bay View—the grounds of the Municipal Hospital.

Plat for the widening of that portion of the Frederick Turnpike Road, in the vicinity of Gwynn's Falls.

Plat for the widening of Park Heights avenue, from Reisterstown Turnpike Road to northern boundary of Baltimore city.

Suggested cross-section of Park Heights avenue, between Druid Hill Park and city boundary.

Plat for the opening of Adams street, from Homewood avenue to Twenty-fifth street.

Plat showing land to be acquired for Mayor and City Council from United Railways and Power Company.

Plat for condemnation and opening of Calvert street, from North avenue to Twentieth street.

Plat for condemnation and opening of Milton avenue, from North avenue to Belair road.

Plats "A" and "B" for the condemnation, opening and widening of Harford road, from the north side of North avenue to the eastern boundary of Baltimore city.

Plat for the opening of McPhail street, from a point 400 feet northwest of Frederick road to the south side of Hollins street.

Typical cross-sections (accompanying report)—Green Spring avenue, between Park Heights avenue and northern city boundary.

Plan of Green Spring avenue on topographical sheet.

Plan No. 2, showing alternate scheme for treatment of Fallsway and Guilford avenue.

Plat of part of the Old Marine Hospital tract in Anne Arundel county, Md., to be conveyed by the Mayor and City Council to Frank A. Furst.

Preliminary plan for the improvement of Reisterstown road, from Fulton avenue to Park Heights avenue.

Plat for opening and widening of New Liberty road, from Clifton avenue to the western boundary of Baltimore city.

Plan for the development of the Old Marine Hospital property, as proposed by Joseph W. Shirley, Chief Engineer, Topographical Survey.

Plat showing relative location of Merrymans lane to University Parkway, compiled from surveys of 1896 and 1911.

Suggested cross-section of Thirty-second street, looking west from Harford road.

Blueprint Sub-Department.

In the report of the Department for the year 1910 quite a gool deal of space was devoted to the newly organized Blueprint Sub-Department. The plant has now been in operation

two years and its success as a saver in lessening the cost of the prints and in the time in which the departments are furnished their work has been highly gratifying; and, aside from these points of merit, it has also proved a good financial investment.

Below will be found a statement of the receipts and expenditures, but this deserves some little explanation. In the amount of $1,144.32 for expenditures is included $200 for the balance paid on the blueprint washer, installed during the first of the year; and about $50 for building a special tank for making negative prints, so that the real expense of operation would be less than $900; this, of course, includes the purchase of all print papers, but neither the gas nor the electricity is figured in, as these were both on the building meters.

The following is a list of the amount, kind and price of the work turned out:

120,193 square feet of blueprints at 1½ cents per square foot.
11,720 square feet of whiteprints at 2 cents per square foot.
2,850 square feet of negative prints at 3 cents per square foot.
1,434 square feet of blueprint linen at 6 cents per square foot.

The complete statement of the receipts and expenditures of this Sub-Department for the fiscal year ending December 31, 1911, is as follows:

RECEIPTS.

(Appropriation for 1911.)

For salaries		$600 00
For expenses		1,200 00
		$1,800 00
EXPENDITURES.		
For salaries	$600 00	
For expenses	1,144 32	
		1,744 32
Balance		$55 68
There has been turned over to the Comptroller for the sale of:		
Prints of all classes		$1,895 23

Receipts and Expenditures.

I beg to make a complete statement of the receipts and expenditures of this Department for the fiscal year ending December 31, 1911; this statement also includes the receipts and expenditures of the Blueprint Sub-Department:

RECEIPTS.

(Appropriation for 1911.)

For salaries		$12,580 00
For expenses		1,750 00
		$14,330 00
EXPENDITURES.		
For salaries	$12,463 14	
For expenses	1,750 00	
		14,213 14
Balance		$116 86

There has been turned over to the Comptroller from sale of:	
Topographical sheets	$22 50
Prints of all classes	1,895 23
	$1,917 73

Respectfully submitted,

Jos. W. Shirley,
Chief Engineer.

DO NOT CIRCULATE

DO NOT CIRCULATE